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BUSINESS WEEK

A MCGRAW-HILL PUBLICATION

TWENTY-FIVE CENTS

MAY 18, 1957



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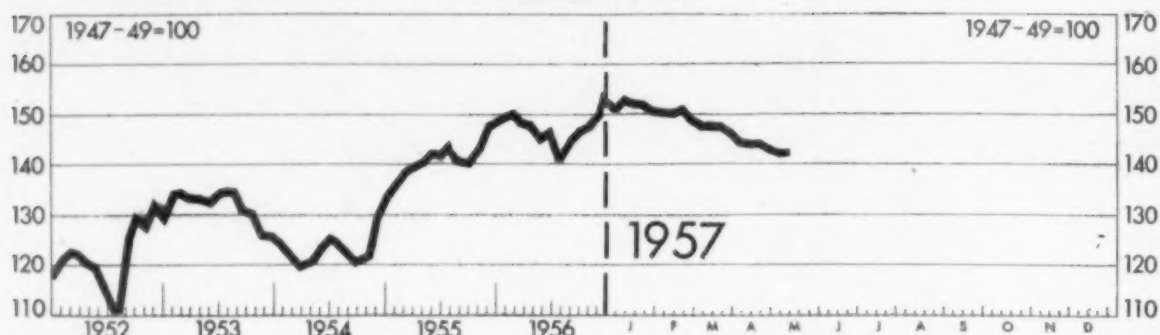
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FIGURES OF THE WEEK



BUSINESS WEEK INDEX (chart)

1946 Average	Year Ago	Month Ago	Week Ago	Latest Week
91.6	146.4	144.7	142.7	143.1

PRODUCTION

Steel ingot (thous. of tons).....	1,281	2,345	2,313	12,220	2,251
Automobiles and trucks.....	62,880	141,411	160,370	155,912	160,743
Engineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.).....	\$17,083	\$73,871	\$57,478	\$70,642	\$69,106
Electric power (millions of kilowatt-hours).....	4,238	10,837	11,695	11,286	11,311
Crude oil and condensate (daily av., thous. of bbls.).....	4,751	7,029	7,442	7,529	7,434
Bituminous coal (daily av., thous. of tons).....	1,745	1,638	1,600	1,667	1,603
Paperboard (tons).....	167,269	294,894	284,442	272,124	291,074

TRADE

Carloadings: miscellaneous and L.C.I. (daily av., thous. of cars).....	82	74	67	66	68
Carloadings: all others (daily av., thous. of cars).....	53	54	44	49	52
Department store sales index (1947-49 = 100, not seasonally adjusted).....	90	125	113	123	134
Business failures (Dun & Bradstreet, number).....	22	258	308	297	267

PRICES

Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100).....	311.9	420.2	407.1	408.1	408.5
Industrial raw materials, daily index (BLS, 1947-49 = 100).....	173.2	96.8	93.3	92.9	92.5
Foodstuffs, daily index (BLS, 1947-49 = 100).....	175.4	82.3	83.0	81.8	81.6
Print cloth (spot and nearby, yd.).....	17.5¢	19.2¢	17.9¢	17.8¢	17.8¢
Finished steel, index (BLS, 1947-49 = 100).....	176.4	158.0	174.0	174.5	174.4
Scrap steel composite (Iron Age, ton).....	\$20.27	\$50.33	\$42.17	\$44.17	\$45.83
Copper (electrolytic, delivered price, E & MJ, lb.).....	14.045¢	45.915¢	31.925¢	31.890¢	31.430¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$1.97	\$2.27	\$2.28	\$2.23	\$2.23
Cotton, daily price (middling, 1 in., 14 designated markets, lb.).....	**30.56¢	36.46¢	33.87¢	33.90¢	33.85¢
Wool tops (Boston, lb.).....	\$1.51	\$1.72	\$2.10	\$2.18	\$2.18

FINANCE

500 stocks composite, price index (S&P's, 1941-43 = 10).....	17.08	46.71	45.01	46.29	46.67
Medium grade corporate bond yield (Baa issues, Moody's).....	3.05%	3.73%	4.43%	4.48%	4.52%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate).....	¾-1%	¾%	¾%	¾%	¾%

BANKING (Millions of Dollars)

Demand deposits adjusted, reporting member banks.....	145,820	55,559	55,588	56,213	55,273
Total loans and investments, reporting member banks.....	171,916	84,887	86,930	87,129	86,087
Commercial and agricultural loans, reporting member banks.....	119,299	28,031	31,376	31,450	31,338
U. S. gov't guaranteed obligations held, reporting member banks.....	149,879	26,939	26,305	26,034	25,552
Total federal reserve credit outstanding.....	23,888	25,325	25,400	25,093	25,177

MONTHLY FIGURES OF THE WEEK

	1946 Average	Year Ago	Month Ago	Inter- Month
Wholesale prices (U. S. Dept. of Labor BLS, 1947-49 = 100).....April.....	78.7	113.6	116.9	117.2
Average weekly earnings in manufacturing.....April.....	\$43.82	\$78.99	\$82.21	\$81.80
Employment (in millions).....April.....	55.2	163.8	63.9	64.3
Unemployment (in millions).....April.....	2.3	12.8	2.9	2.7
Housing starts (in thousands).....April.....	55.9	111.4	83.0	92.0
Bank debits (in millions).....April.....	185,577	176,760	197,024	192,492
Retail sales (seasonally adjusted, in millions).....March.....	\$8,541	\$15,740	\$16,500	\$16,443

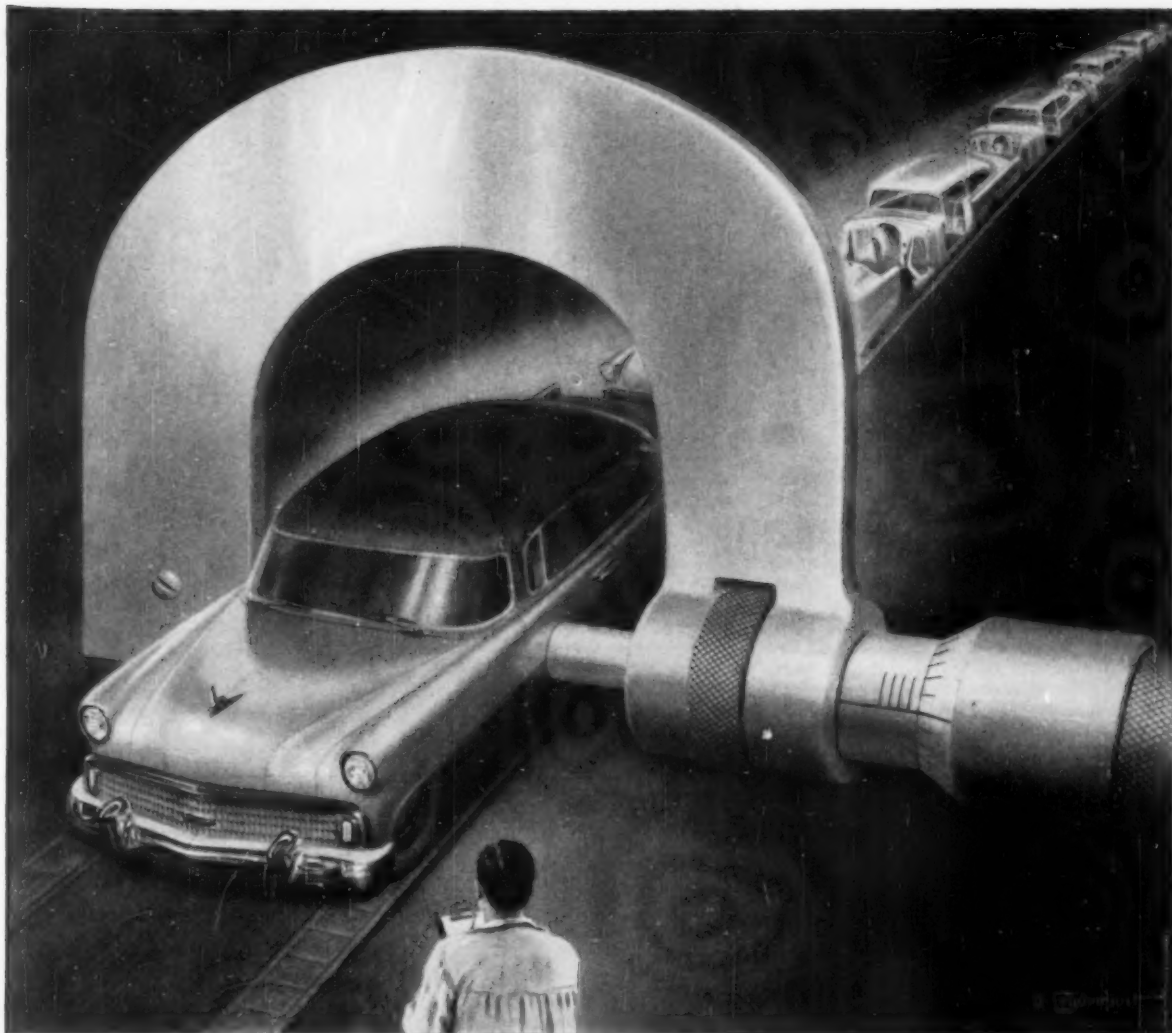
* Preliminary, week ended May 11, 1957.
† Revised.

†† Estimate.
** Ten designated markets, middling 16 in.

‡ Data for 'Latest Week' on each series on request.

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" V I S I O N I S I N D I S P E N S A B L E T O P R O G R E S S "



The tools men teach to "think" —to mastermind mass production

A low-priced automobile might cost \$50,000 were it not for mass production. The machine tool industry is the cornerstone of mass production—whose products range from zippers to cars.

Skilled manufacturers construct tools, dies, jigs, gauges and intricate production machines. To make one jet aircraft engine requires 20,000 tools! Versatile drills, grinders, lathes and tremendous milling machines cut, pierce and shape metals to tolerances 1/30th the width of a human hair.

Raw materials can be transformed

into finished products by batteries of machines controlled entirely by electronics. One such machine is so conscientious it tries to correct any error, shuts itself off when it can't!

In its Herculean contributions to our progress in peace and our victories in war, the machine tool industry typifies the production achievements continually encouraged by

our free, competitive business system.

Behind every machine tool company you'll find a bank working on close, friendly terms with the treasurer, supplying essential financial services. With our correspondent banks, we provide every type of banking service to this and many other progressive industries. *How can we help you in your business?*

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*Editor's questions reveal
how famous air rifles got
their name...what's dangerous
about wooden automobiles
...and how safety can
mean savings.*

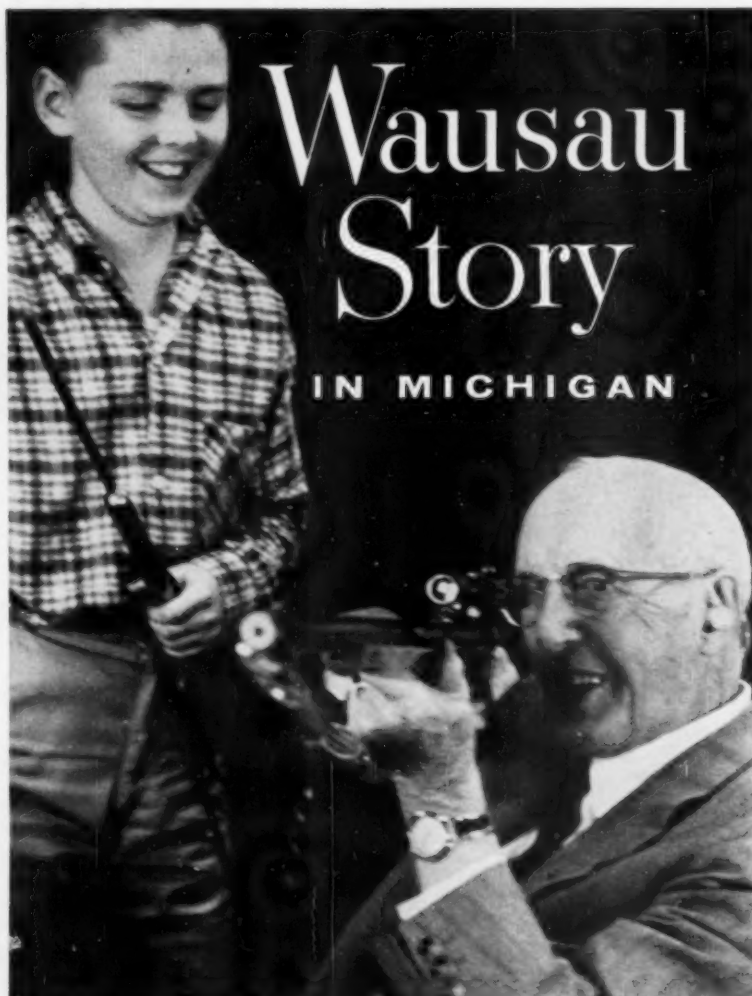
by **KENNETH A. THOMPSON**
business and financial editor,
The Detroit Free Press



"The Question Askers on those high-powered quiz shows had nothing on me when I started to write this story. First question: What has Wisconsin's city of Wausau got to do with business here in Michigan?"

"That question was answered for me by top men in some of our state's most important and interesting companies. These men told me that out of Wausau has come an altogether unique way of doing business—a way of working that has all the qualities of the community itself. From what I hear, Wausau people are competent and efficient. But more than that, they have a neighborly kind of helpfulness. Wherever there are Employers Mutuals people, there's this 'bit of Wausau' too. I can see why they have a reputation here in Michigan—and nation-wide—for being 'good people to do business with.'"

Safety means savings! Lamina Dies and Tools, Inc., at Berkley pays a lower rate today on workmen's compensation insurance than they did 5 years ago—despite increases in compensation benefits in Michigan. How come? The fine safety record! The company received Employers Mutuals' Safety Award for 676,000 man hours without a lost-time accident. Pictured: President F. J. Henkel shows motor parts stamped by dies they make to Employers Mutuals Safety Engineer Willis Wiggins.



A Daisy! Mr. Edward C. Hough, president of Daisy Manufacturing Company at Plymouth tells how, in 1888, his father praised the company's first B-B gun by calling it a daisy. Hence the name! Mr. Hough calls Employers Mutuals a "fine company"... says they count on Employers Mutuals' help with the plant's continuous accident prevention program. Here, Mr. Hough shows the newest Daisy to Junior Policeman Bob Stewart.



Automobiles of wood. Employers Mutuals Nurse Marion Mills watches Joe Wagener work on a wood model of a new automobile at the Ring Pattern and Manufacturing Company at Warren. The wood is mahogany impregnated with plastic—a combination of materials which often makes dermatitis a problem. To solve it, Employers Mutuals works closely with the company.

Employers Mutuals, with more than 100 offices across the country, writes all lines of fire and casualty insurance. We are one of the largest in the field of workmen's compensation. For further information see your nearest representative (consult your telephone directory) or write us in Wausau, Wisconsin.

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business with"*

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1929



1936



1946



1950

Dear Readers:

If you did a doubletake at the front cover of this week's issue, we wouldn't be a bit surprised. In fact, we would feel disappointed if you hadn't noticed it, or liked it.

This is not the first cover change BUSINESS WEEK has had. Since our first issue, Sept. 7, 1929, we've had seven different covers. To give you an idea of what some of the old covers looked like, we have reprinted several above.

The new cover is the latest in a series of important illustration and typographical changes we have been making.

Illustrationwise, BUSINESS WEEK has come a long way in the past five years. We have developed a new brand of photo journalism, as well as new styles of charts and tables. We have also drawn on the talents of the nation's top illustrators.

In line with this greater use of illustration, we have been using more and more four-color illustrations, especially on our covers. However, we felt that our old cover with the maroon frame detracted from the excitement of our color work and of pictures.

Our new cover, we feel, with its larger illustration area, provides greater impact for our cover illustrations. While most of the traces of our old cover have disappeared, we have kept the logotype with its maroon background, which has become a very familiar and welcome sign through the years to our 300,000 subscribers, and the thermometer showing the latest reading of the Business Week Index.

THE EDITORS

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Taking "the bite" out of acids, this film drum-liner made of BAKELITE Brand Polyethylene offers many impressive advantages according to the user. "It is durable, chemical resistant, easy to work with, requires no attention or pre-shipping inspection, has excellent storage stability, is tough and flexible, protects contents from being contaminated by corrosion of the container, and, above all, assures safe delivery." Entire drums molded of BAKELITE Polyethylene possess similar advantages, with a plus in light weight for savings in shipping costs.



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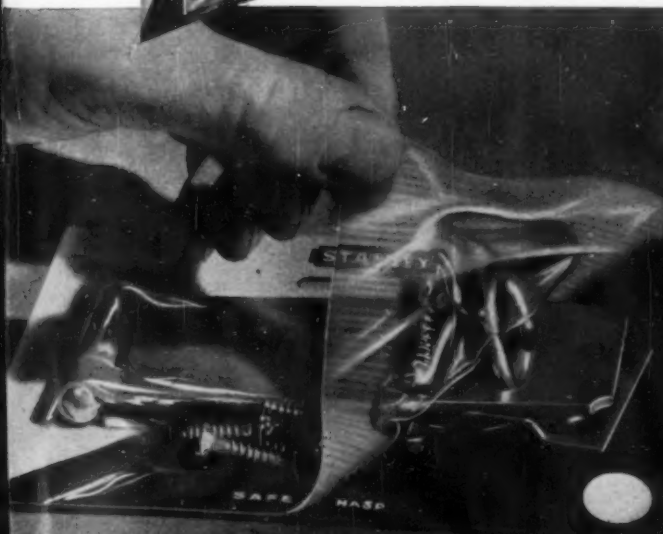
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Our company has often been called the leading independent petroleum research organization. This may be true, as far as it goes, but it falls far short of a true description of our function in the great petroleum industry. In the broad sense, UOP is a *service* organization operating on the basic objective of improving petroleum refining technology in order to help any refiner better his operating and economic position by producing a larger volume of higher quality petroleum products from each barrel of oil he processes. The attainment of this objective encompasses a wide field of endeavor.



It all starts in our laboratories. Here, in an ideal research atmosphere, scientists and technicians search out that elusive new idea that will provide a better and more efficient refining process or method.

We may follow many unfruitful paths and carry out diverse experiments until we find a promising approach. Then it is analyzed and evaluated by UOP's top-flight group of scientists and engineers. This expert consideration determines the



practical importance of the theory. This application is then carefully developed in exhaustive pilot plant investigations. Standard facilities are maintained for this or special ones developed as necessary. These pilot plant studies also give helpful design data and cost information on plant construction and product manufacture.



When proved, the new process becomes available for license by any refiner, anywhere.

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Having designed the equipment to make the process work, we do all we can to make sure that the plant built for the process will perform efficiently. So we make available to our licensees experienced UOP engineers to supervise its construction.

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TO THE OIL REFINING INDUSTRY

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chemicals
at work

"Tin cans" really aren't, you know . . . it isn't that simple at all. Steel strip, tin anodes, electricity, and caustic soda ingeniously work together to produce these universally used tinplate containers.



Fast bath for tin cans keeps beans fresh for years

This banqueting Knight of the Open Road needn't guard his "independence" too jealously. In many respects he's one with us conventionally hard working folk. Take that smoking symbol, the ever-present tin can that both protects his meal and provides the pan to stew it in. Fifty thousand million tinplate containers of all types were produced last year. Into them went better than thirty million tons of perishable or fragile merchandise . . . foods, beverages, baby powder, paint, tobacco, any number of goods.

The ubiquitous "tin can" begins as steel strip, or sometimes sheet. The steel is coated with an extremely fine layer of tin, generally measured in microns (try easily visualizing .00254 of one inch). The unique corrosion resistance and "keeping" qualities of

tinplate carry products safely through the decades and around the globe.

Since 1942, most tinplate has been produced electrolytically. Total output, concurrently, has very nearly doubled. Steel strip and pure tin anodes enter a bath rendered highly alkaline by that familiar chemical workhorse, caustic soda. Caustic's presence eases the tin smoothly into solution, and under electric current helps regulate its uniform deposition onto the steel. This delicate operation clips along at hair-raising speeds: 5,000 feet per minute isn't unusual.

For good tin-to-steel adhesion, the strip must be perfectly clean as it whirs into the tank. Caustic soda accomplishes this, too, in company with another versatile alkali, soda ash.

Many tinplaters get their caustic

from Columbia-Southern . . . and their soda ash, too. That's general practice among thousands of quality-conscious firms throughout industry. A leading merchant producer of chlorine, Columbia-Southern is "first pick" for a wide range of alkalies and related chemicals that help businesses make better products faster, more safely, with increased economy.

COLUMBIA-SOUTHERN CHEMICAL CORPORATION

SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY
ONE GATEWAY CENTER • PITTSBURGH 22 • PENNSYLVANIA

Chlorine, Alkalies and Related Chemicals
Offices in Principal Cities

IN CANADA: Standard Chemical Limited and its
Commercial Chemicals Division

Popular Adirondack Mountain Hotel Proves Sprinklers "Good Business"

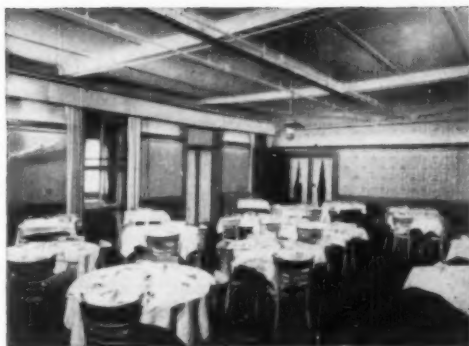


FLASH FIRE STOPPED BY GRINNELL SPRINKLER SYSTEM



Picturesque Colonial Arms occupies the site of two previous buildings which burned to the ground. The present hotel was saved from a possible similar fate by Grinnell Automatic Sprinklers.

Fire struck here in the hotel kitchen. Fat drippings in a broiler caught fire and a sheet of flame enveloped the ceiling. Overhead sprinklers opened automatically, doused the fire in seconds.



One hundred guests filed quietly out of this dining room, returned on schedule for breakfast next morning because damage was so slight.



Mr. E. B. Whitacre, Manager
Colonial Arms Hotel, Warrensburg, N. Y.

"The sense of security of staying in a fireproof hotel is very important to guests. This, combined with our own fortunate experience with sprinkler protection, proves to us that a Grinnell Automatic Sprinkler System is just good, sound business."

That's right! Grinnell Sprinklers are good, sound business — because they operate with automatic certainty . . . stand ready, day and night, to stop fire at its source, whenever and wherever it starts. The losses they prevent, the security they offer, and the 50% to 90% reduction in fire insurance premiums they often make possible — all add up to an investment that pays for itself.

Does your business have this sure Grinnell Protection? We'll gladly survey your property and submit an estimate without cost or obligation. Write or phone Grinnell Company, Inc., 265 West Exchange St., Providence 1, Rhode Island.



GRINNELL

PROTECTION AGAINST EVERY FIRE HAZARD



Manufacturing, Engineering and Installation of Automatic Sprinklers Since 1878



for your motor-driven products

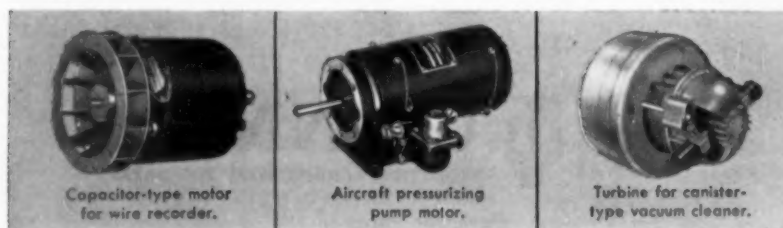
Whether powering industrial, commercial or domestic products, Lamb Electric Motors have a record of exceptional performance.

Outstanding motor quality and uniformity are the results of our high degree of specialization in both equipment and methods, combined with rigid process control.

Your staff and ours working together can give *your* product the dependability and long life that result from this standard of motor quality . . . and frequently give you lower costs.

THE LAMB ELECTRIC COMPANY • KENT, OHIO
In Canada: Lamb Electric—Division of Sangamo Company Ltd.—Leaside, Ontario.

Lamb Electric
SPECIAL APPLICATION FRACTIONAL HORSEPOWER **MOTORS**



Capacitor-type motor
for wire recorder.

Aircraft pressurizing
pump motor.

Turbine for canister-
type vacuum cleaner.

READERS REPORT

Needs a Rewrite

Dear Sir:

It is respectfully suggested your research department investigate the following: (1) The difference between a savings bank and a savings and loan association. (2) The difference between a commercial bank and a savings and loan association. (3) The difference between a savings bank and a commercial bank. (4) The number of savings banks in Illinois. (5) The difference between the rights of depositors and those of shareholders.

Then rewrite the article, *Run on Three Chicago Banks* [BW—May 4 '57, p. 52].

GEORGE M. WASEM

VICE-PRESIDENT
COMMERCIAL NATIONAL
BANK OF PEORIA
PEORIA, ILL.

. . . I should think that so astute a magazine as *BUSINESS WEEK* would be more careful of its terminology in describing savings and loan associations within the state of Illinois. . . .

LAURANCE H. ARMOUR, JR.
VICE-CHAIRMAN OF THE BOARD
LASALLE NATIONAL BANK
CHICAGO, ILL.

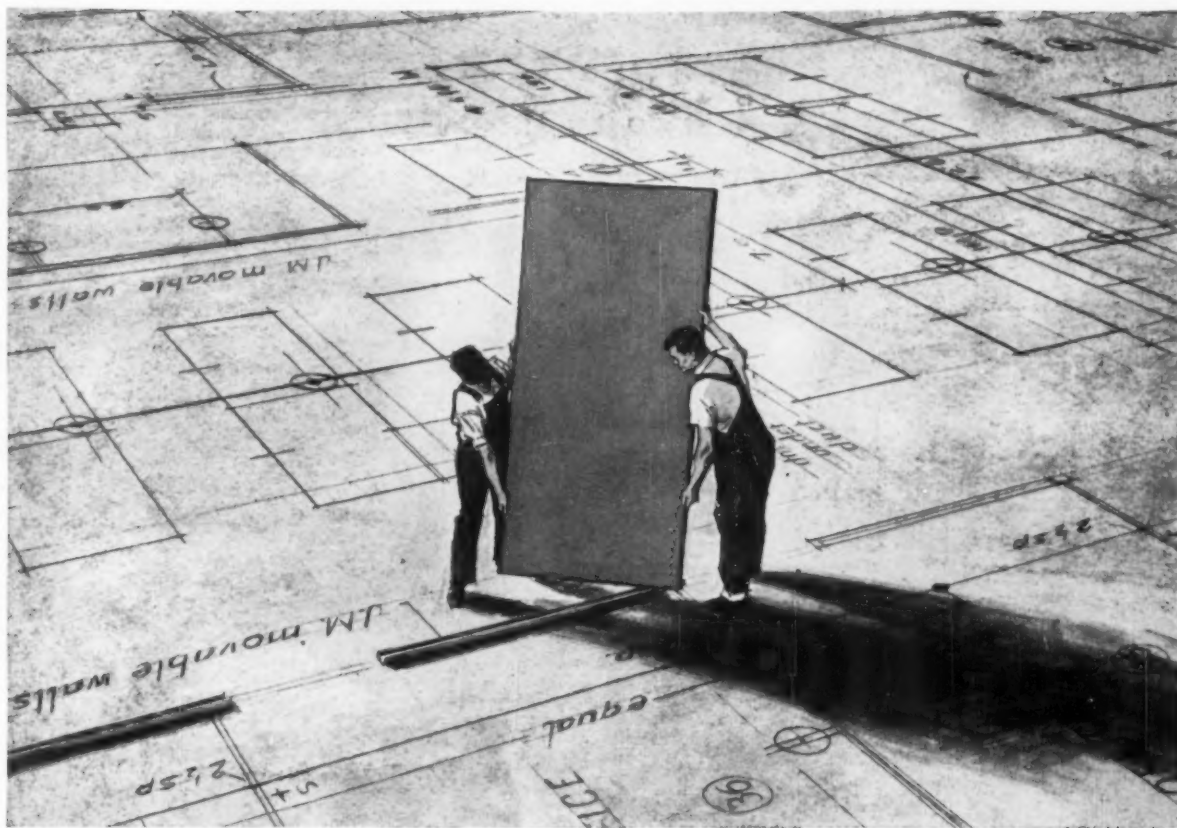
. . . It might be well if your editorial staff and reporting staff be briefed on the meaning of the word *BANK*. . . .

L. N. SHONKWILER
EXECUTIVE VICE-PRESIDENT
SKOKIE TRUST AND SAVINGS BANK
SKOKIE, ILL.

. . . It is understandable that many people confuse the two types of institutions but it is suggested that the editors of your publication should be able to distinguish between the two. . . .

JOSEPH M. NAUGHTON
PRESIDENT
THE SECOND NATIONAL BANK
OF CUMBERLAND
CUMBERLAND, MD.

• *BUSINESS WEEK* takes pride in its record for editorial ability and accuracy in writing about financial institutions. However, its editors can make mistakes and they certainly proved it in this case. The headline of the article should have read: "Run on Three Chicago S & Ls" and the article itself should have made the same distinction between a bank and a savings and loan association.



How to build *flexibility* into an office layout

Johns-Manville Asbestos Movable Walls can be quickly changed at will

You can make your offices completely flexible with J-M Asbestos Movable Walls. They are readily movable, yet have the stability and appearance of permanent and solid wall construction.

Johns-Manville Movable Walls can be erected, disassembled and relocated time and again—wherever a change in space is required. This time-saving and money-saving flexibility permits quick and economical alterations in size, arrangement or type of layout.

J-M Movable Walls are prefinished in stippled, textured colors of light

green, light tan and light gray, with other solid colors available on order. Their hard, tough finish is scratch and stain resistant. These walls lend dignity and beauty to any type of office interior.

Made of asbestos and cement J-M Movable Walls are fireproof, strong, rotproof and long lasting. Wall changes can often be made in a few days or during a weekend. You save construction dollars. For free brochure "Asbestos Movable Walls," write Johns-Manville, Box 158, New York 17, N. Y. In Canada, write 565 Lakeshore Rd. E., Port Credit, Ontario.



Johns-Manville flush or glazed partitions are furnished and erected by J-M's own Construction Department, complete with doors, door hardware, glass and trim.



Johns-Manville congratulates the American Institute of Architects on its 100th Anniversary.

—Consult an architect—use quality materials.



Johns-Manville



Who quotes letters
any more?

AGE-OLD PRACTICE REPLACED BY VERIFAX COPYING IN THOUSANDS OF OFFICES

No need to dictate paragraphs quoting from letters, reports, news articles—to dictate the same text over and over again in separate memos to key men.

So much easier to jot your comments on the original—like “Joe, note this”; “Bill, check this”—and send

Price quoted subject
to change
without notice.

Verifax copies to all concerned. (Your secretary can whisk out 5 of these errorfree copies in 1 minute for 2½¢ each.)

Lots of other short cuts. You'll answer half your mail without dictation and typing—save ten minutes here, ten minutes there . . . all day long. Safe to say your Verifax Copier will pay for itself the first month in savings in dictation and typing, alone.

Free . . . new Don Herold booklet.

Famous cartoonist-humorist offers a painless treatise on latest office techniques—has smiles and work-saving tips for you and your secretary on every page. How to answer mail without dictation and typing • How to do “all-day” re-typing jobs in 20 minutes • How to make an offset master in 1 minute—Don goes on and on. Mail coupon. Or phone nearest Verifax dealer listed in “yellow pages” under “Photocopying Equipment.”



ONLY \$148 . . . Kodak's new Verifax Signet Copier makes 5 copies in 1 minute for just 2½¢ each. *Even one-man offices report saving its cost the very first month!* Thousands in use. Pays to have one in every department.

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DOES MORE . . . COSTS LESS . . . MISSES NOTHING

MAIL COUPON TODAY

EASTMAN KODAK COMPANY, Business Photo Methods Division
343 State Street, Rochester 4, N. Y.

Gentlemen: Please send free copy of Don Herold's
new booklet “How I Learned the Verifax of Life.”

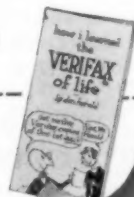
21-5

Name _____ Position _____

Company _____

Street _____

City _____ State _____



Kodak
TRADE MARK

Another example of



**CHEMICAL
PROGRESS**

Tank car being sprayed by Lithcote Corp. with coating based on special phenolic resin developed by General Electric. Unusual chemical resistance of coating gives tank cars "two way" versatility—enables them to haul acid one way, make return trip with hot caustic.



General Electric Resin Chemistry

GIVES TANK CARS A "TWO WAY STRETCH"

Corrosion that never touches a chemical tank car can still severely limit its usefulness—in this way: A car delivering acid may have to stand idle or be returned empty if its protective lining isn't impervious to attack by other corrosive chemicals.

To solve the problem of chemical corrosion—for processing equipment as well as tank cars—General Electric chemical research has developed a class of coating materials called G-E Methylon® Resins. These resins have all the chemical resistance of phenolics, plus unusual resistance to alkalis, soap solutions and strong oxidizing agents such as chromic acid. Under

severe operating conditions, G-E Methylon formulations have far outlasted standard coating materials.

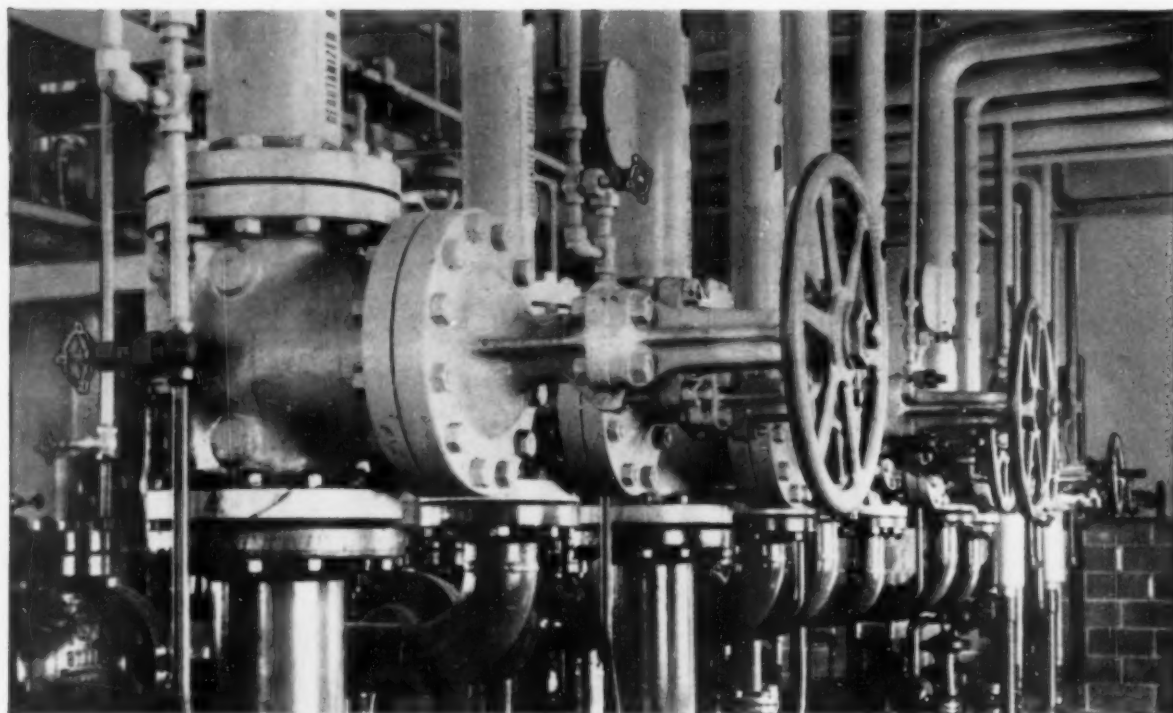
Resin chemistry is an important part of General Electric research, for G.E. makes a wide range of resins for industry. For further information on Methylon resins, write Dept. CMD, CHEMICAL and METALLURGICAL DIVISION, General Electric Company, Pittsfield, Mass.

Progress Is Our Most Important Product

GENERAL  ELECTRIC

Don't Hedge on Quality When You Buy Steel Valves...

Maintenance costs can gobble up your savings in a few months!



LUNKENHEIMER QUALITY is no longer a luxury—it's your vitally needed insurance against today's sky-high maintenance expense. Labor rates are going still higher . . . "downtime" costs are multiplying . . . repair charges are rocketing up—with no relief in sight. Today, it pays to buy the *best valves you can get*, with no hedging on quality. Your purchase of Lunkenheimer Steel Valves is an investment that pays

worthwhile dividends in maintenance savings . . . year after trouble-free year. The Lunkenheimer Company, Box 360, Annex Station, Cincinnati 14, Ohio.

The cost of a LUNKENHEIMER VALVE
Gets smaller...and smaller...and smaller...
with each passing year of dependable service

A check on the cost of maintaining your cast steel valves will prove this point.

STEEL • BRONZE • IRON • PVC



LUNKENHEIMER
THE ONE *Great* NAME IN VALVES

L-1086-2



Henry Rosenfeld, President of Henry Rosenfeld, Inc., asks:

"Which model has the most dates?"

"One of these models has kept only one date — the other, over 50,000!"

"On the left is the one-date model — the original, hand-made, custom-designed 'Henry Rosenfeld dress #5026.' Its only date was our Spring showing.

"On the right is a copy. The dress caught on, became a 'hot number' and we had to deliver it — fast! Thousands of copies were shipped to hundreds of stores — without missing one date — thanks to Air Express.

"Buyers all over the country, knowing how much we ship

via Air Express, planned their promotional programs and sales with no fear of a hitch.

"Using Air Express, we regularly meet the fierce competition of the fashion business. And we save money doing it!

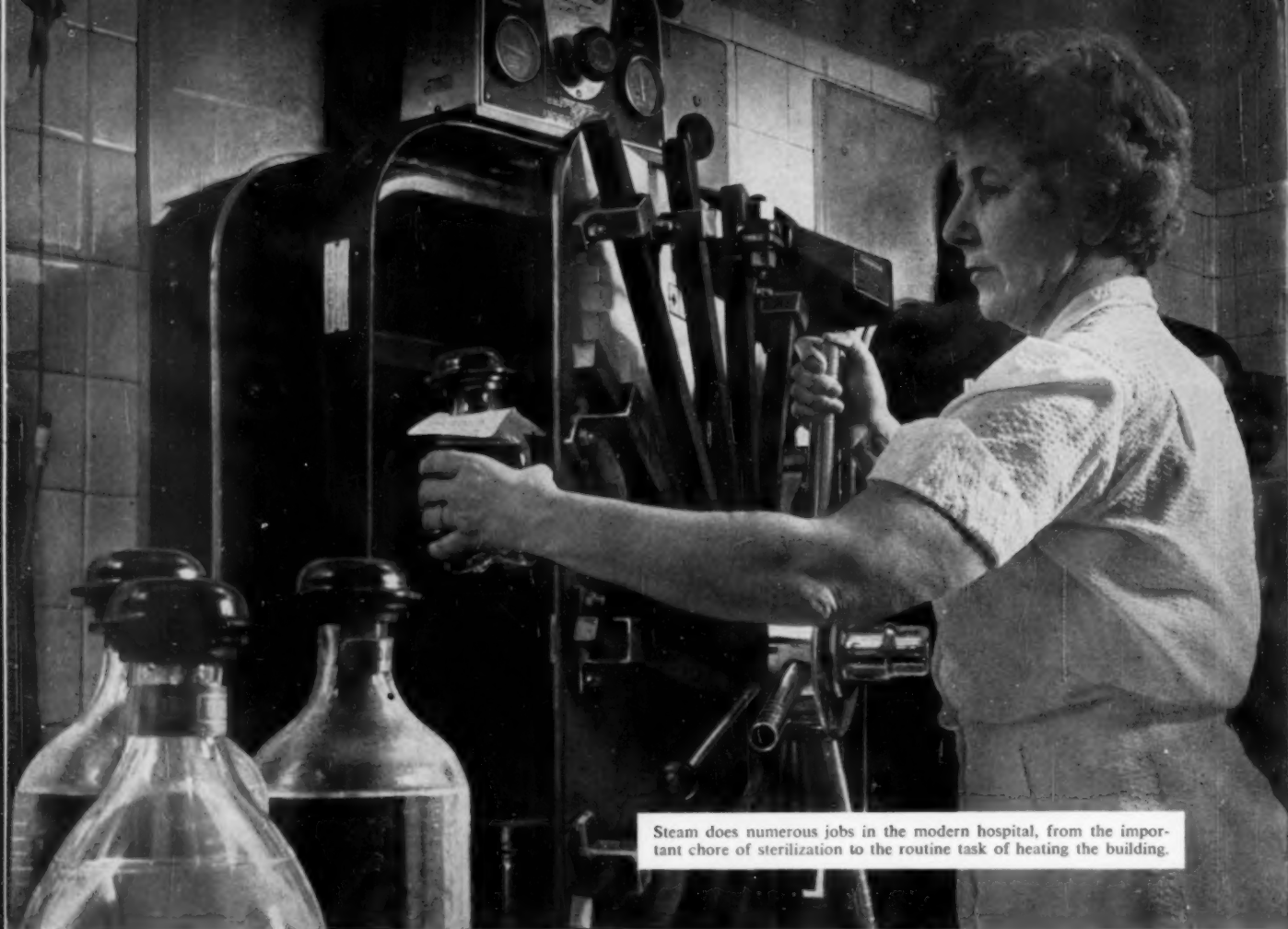
"For example, a typical 15-lb. shipment from New York to Richmond, Va., costs \$3.23 with Air Express — \$3.82 less than any other complete air service.

"What's more, Air Express uses radio-controlled trucks to rush our shipments to and from airports — and, whenever necessary, a private teletype system to trace shipments instantly."



30 YEARS OF GETTING THERE FIRST via U.S. Scheduled Airlines

CALL AIR EXPRESS . . . division of RAILWAY EXPRESS AGENCY



Steam does numerous jobs in the modern hospital, from the important chore of sterilization to the routine task of heating the building.

Steam Supply by B & W

Saves Monmouth Memorial Hospital \$10,000 a Year "Package" Boiler Supplies Clean, Dry Steam for Many Uses

An oil-fired B&W Integral-Furnace Boiler is saving \$10,000 a year for the 350-bed Monmouth Memorial Hospital at Long Branch, New Jersey. This boiler heats the hospital, nurses' residence, doctors' office building, and clinic. It supplies steam for the cafeteria, main kitchen, floor pantries, sterilizers, and laundry.

Cost of Fuel Consumed Each Year equals original cost of boilers in most cases. You'll be surprised how much money you're burning. This is the money that really matters—not the initial cost of the boiler.

It Will Pay You to look at your steam costs regardless of your demands, whether large or small, or for process

or heating. During the normal life expectancy of many boilers, the fuel bill can amount to several million dollars. Unless it is well engineered, serviced, and maintained, a boiler's efficiency can drop off 2 or 3 per cent or even more. This amounts to a substantial sum of money.

You Save on Your Steam Supply with a B&W Boiler. It pays to buy the best — top level engineering, long range sustained economy, and best performance. A national network of plants and engineers, supported by nearly a century of steam generating experience, is yours with B&W.

"Steam, Its Generation and Use", the definitive book on the subject,

covers all of the applications of steam to industry. It was written by the same B&W engineers who can bring you long range sustained economy for your steam operations. We'll be glad to tell you how you may obtain a copy for yourself or your engineers. Just drop a note on your company letterhead. The Babcock & Wilcox Company, Boiler Division, Dept. BW-5, 161 East 42nd Street, New York 17, N. Y.

G-840-18



MODERN STEAM MAKES YOUR PRODUCT BETTER AT LOWER COST



WHAT IF THE PRESIDENT AND THE OILER EXCHANGED JOBS FOR A DAY!

It probably won't happen. But in many companies perhaps the president and the oiler *should* take each other's job for a day. The oiler's first decision as acting president might be to get rid of old-fashioned manual lubrication methods. And management, after a day in the oiler's shoes, would approve of this important step. Here's why:

Management would find out what the oiler already knows—that you can't protect modern machines and *keep them running* with an inadequate lubrication system. Both management and the oiler would realize how vital production time is wasted when machines must be stopped for lubrication.

An outmoded manual lubrication system is often the source of serious hidden plant losses. Product spoilage, wasted man-hours and needless machinery failures cut into profits. Yet, for all these problems, there is a simple, sure solution.

If you are paying the penalties of old-fashioned lubrication methods, you can get expert help from Alemite.

Modern Automatic Alemite Lubrication. A Mid-west manufacturer cut costs \$20,000 a year. A paper company saved \$3,000 a month. And a textile firm ended substantial production wastes.

The answer: Modern Alemite systems that automatically feed exactly the right amount of oil or grease to every lubrication point . . . that keep machines running longer with less downtime . . . that eliminate oil waste and product spoilage.

Take a look around your shop. Ask yourself if an Alemite lubrication expert might not recommend an inexpensive solution to your lubrication problems. Wherever you are, there is an Alemite representative ready to serve you—and help you save money!



FREE NEW BOOKLET! Send for a free copy of "An Executive Approach to Lubrication Problems." No obligation, of course.

ALEMITE

REG. U. S. PAT. OFF.

Division of STEWART-WARNER CORPORATION



1850 Diversey Parkway
Chicago 14, Illinois

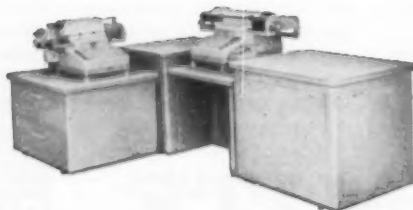
Making man the master of paperwork

As the business pace accelerates in this year of 1957, paperwork costs are multiplying even faster. The keen competition for clerical workers doesn't help the situation in any way. For some businesses, Underwood automation of paperwork has been the actual means of survival. For many others, the efficiency of Underwood systems has meant an improved profit picture through lower clerical costs, closer management control and improved service to customers. Let Underwood help put you on top of paperwork problems. Call your local Underwood showroom (see Yellow Pages), or write to Underwood Corporation, One Park Avenue, New York 16, N. Y.

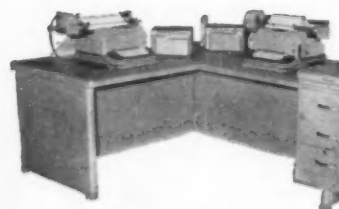
underwood 
master-control systems



Post-Master, Sundstrand and
Elliott-Fisher
accounting machines



Elecom 50
electronic computer
systems

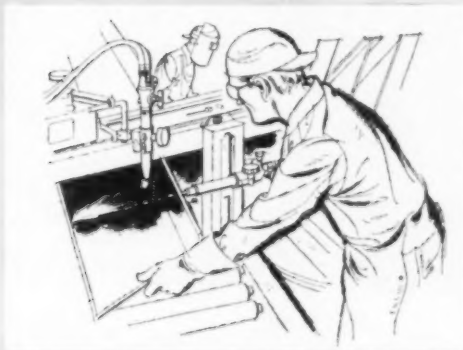


Dataflo®
processing
systems

PLANNING



ENGINEERING



FABRICATION



CONSTRUCTION

LURIA MEANS FULL RESPONSIBILITY

A practical solution to your building problem

Buildings for new or expanded facilities go up faster, and more efficiently, when they're handled the Luria way. That's because Luria operates on the basis of "full responsibility."

Chances are that a standardized building from stock materials will fill your needs. But if a special building is required, Luria works closely with you during the planning stage, then designs and fabricates your building in its own plants. In either case, Luria also handles all phases of construction, thus centering all responsibility from start to finish in one competent organization.

The Luria way helps you turn plans into production — *fast*. It answers management's demands for a quickly established, profitable operation, with minimum investment. Get the full story from a Luria representative. He'll be glad to call on request.

New Snap-on Tools Corp. Building—
Mount Carmel, Illinois



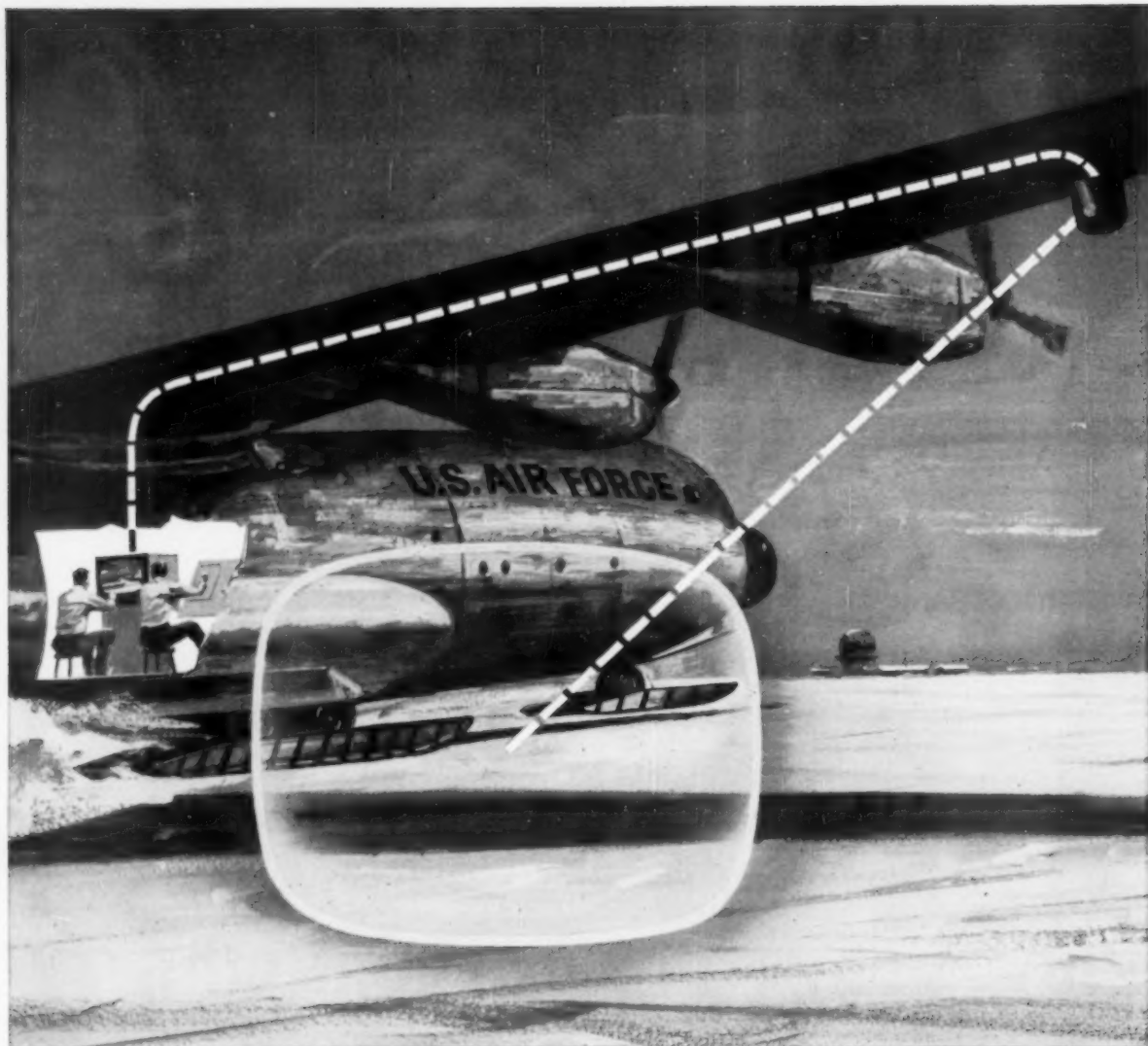
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A Knowing Look

When Lockheed wanted to watch the in-flight behavior of the giant skis on their 62 ton C-130 Hercules propjet—they used an IT&T closed-circuit TV system to show engineers inside the plane exactly what was happening.

Closed-circuit television systems developed by International Telephone and Telegraph Corporation are proving to be valuable tools for industry, management, and the military.

When there's a need to see, you can use the eyes

of the TV camera to overcome distance, dust, or hazardous locations—even to peer inside a boiler! It takes you anywhere—and sees everything.

This is another major contribution in visual telecommunication and electronic controls by the creative engineering of IT&T.



INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION, 67 Broad Street, New York, N. Y.

For information about Closed-Circuit Television Systems write Industrial Products Division of IT&T, 100 Kingsland Road, Clifton, N. J.



Taming a jet's fiery blast

... with super-heat-resistant alloys, vacuum-melted by
General Electric's Metallurgical Products Department

The hotter the temperature inside a jet engine, the more power it can produce. But every increase in heat robs engine parts of hours of life. That's where vacuum-melting, pioneered by General Electric, comes in.

Alloys melted in a vacuum — instead of in air — offer spectacularly improved physical properties. Only they can survive the heat and stress generated in modern jet and rocket engines. These alloys are now being produced by G.E.'s Metallurgical Products Department ... the department that specializes in working on the frontiers of metallurgy.

Its responsibility is to turn the metallurgical discoveries of G-E research laboratories into commercial reality. The list at right indicates how diversified this department's product scope now is. And coming along are many new developments from which all industry will ultimately profit. Metallurgical Products Department of General Electric Company, 11183 E. 8 Mile Blvd., Detroit 32, Michigan.

**Metallurgical Products
Department is now
supplying industry with:**

Carboloy® Cemented Carbides
Carboloy Cemented Oxide
Carboloy Machinability
Computer
G-E Alnico Permanent Magnets
G-E Hevimet
G-E Thermistors
G-E Thyrite® Varistors
G-E Vacuum-Melted Alloys

Progress Is Our Most Important Product

GENERAL  ELECTRIC



come down here this minute, Henry Jones!"



Henry: Martha. *Really!*

Martha: Don't "Martha Really" me!

Henry: This isn't like you, dear. After all, I left you with a thriving business and a secure . . .

Martha: Henry, did you remember to get in touch with the Man from Equitable?

Henry: I had a note in my pocket to call him.

Martha: He planned to get you, the lawyer, and the banker together to talk about a new kind of business insurance.

Henry: I know I wrote it down . . .

Martha: He wanted to show you how we would have money for inheritance taxes, without having to sell the business.

Henry: It was on a little piece of paper . . .

Martha: Well, Henry, we *didn't* have enough to pay the inheritance taxes. We had to sell the business for much less than it was worth.

Henry: I guess I never did call that Man from Equitable.

Martha: I guess you never did, Henry.

Henry: Terribly careless.

Martha: Terribly.

Henry: Not like me.

Martha: Not like you.

Henry: Now what did I do with that harp?

Living Insurance for Business by Equitable



FREE BOOKLET

Equitable Life Assurance Society of the U.S.
393 Seventh Avenue, New York 1, New York—Room 1807
Please send me Equitable's new booklet which explains how Living Insurance can help solve many common business and tax problems.

NAME

FIRM

ADDRESS

CITY

STATE

ZONE



Here Comes A New Way Of Life.


That lonely truck moving through the night is a symbol of the way we live today. What you see, of course, is a modern motor vehicle. What you don't see are the fresh and packaged foods it's carrying to some suburban shopping center, there to be unloaded before opening time tomorrow . . . It's just one of many trucks you'll probably meet before you get where you're going — and one of millions continually at work across this country on the everlasting job of moving increasing mountains of merchandise of every description to where

they're needed . . . Actually it's a new way of life, this truck you're passing in the night, for with their flexibility and speed, their ability to go wherever there are roads, trucks have changed our whole pattern of living. Today, because of trucks, we can live and shop wherever we please — and mills and plants can locate just about anywhere, too . . . America is growing at a rate and in directions undreamed of a generation or so ago and made possible to a large extent by the trucking industry, expanding to serve you.



AMERICAN TRUCKING INDUSTRY

American Trucking Associations, Inc., Washington 6, D. C.

THE SHORTEST DISTANCE BETWEEN TWO POINTS IS A  LINE



DRAVO-LURGI sinter plants convert iron ore fines to usable form

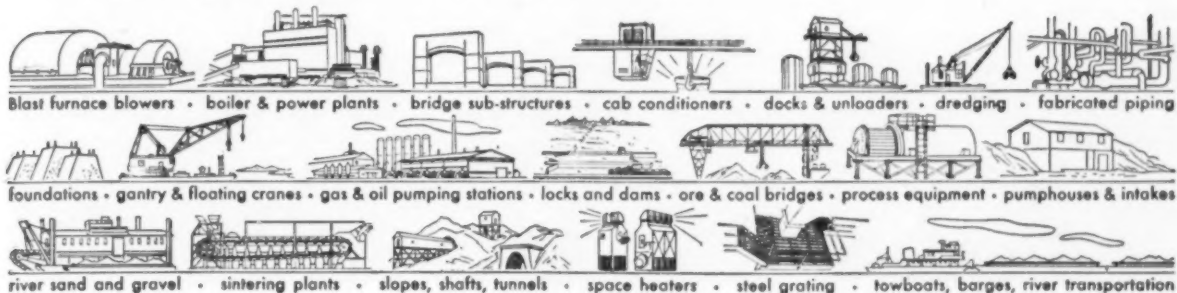
Two new sinter plants, with a combined annual capacity of over 10,000,000 tons, are being built by Dravo. Each plant will contain three huge sinter machines for processing iron ore fines into clinkers suitable for charging blast furnaces.

Through an exclusive licensing agreement with the Lurgi Company, Europe's foremost builder of sinter machines, Dravo Corporation's extensive engineering and construc-

tion facilities are combined with Lurgi's design experience. The new plants now under construction are a result of this combination.

Dravo's engineering and construction skills play an important part in making new processes and techniques available to industry. For information on any of the products or services listed below, write **DRAVO CORPORATION, PITTSBURGH 22, PENNSYLVANIA.**

DRAVO
CORPORATION



CONNECTICUT MANUFACTURER SLASHES COSTS

14 WAYS WITH STAPLING—COULD YOU ?

All of these on-the-job photos were taken in New Britain, Connecticut. They show Bostitch stapling going on in three divisions of The Stanley Works, manufacturers of hand and power tools and hardware.

Bostitch stapling reduces fastening costs, improves package strength and appearance, cuts shipping costs and enhances product looks and salability.

Many of these applications were developed with the aid of a Bostitch Economy Man, working in conjunction with this manufacturer's personnel. Whatever

your business, this same careful analysis can be *yours*, too, without obligation. The Bostitch Economy Man nearest you is one of 375 trained fastening specialists working out of 123 cities in the U.S. and Canada. 300 Bostitch staplers and 200 types of staples assure fastening methods and equipment exactly suited to your work.

Begin probing *now* for hidden savings in your plant, offices and shipping room.

Look up Bostitch in your phone directory or send the coupon for useful free information.

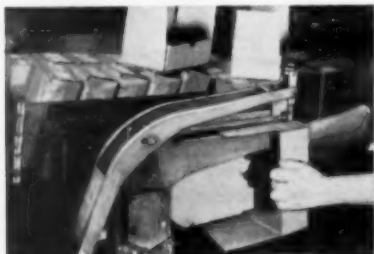
Stapling tags to wooden boxes — 20% faster than tacking with hammer.



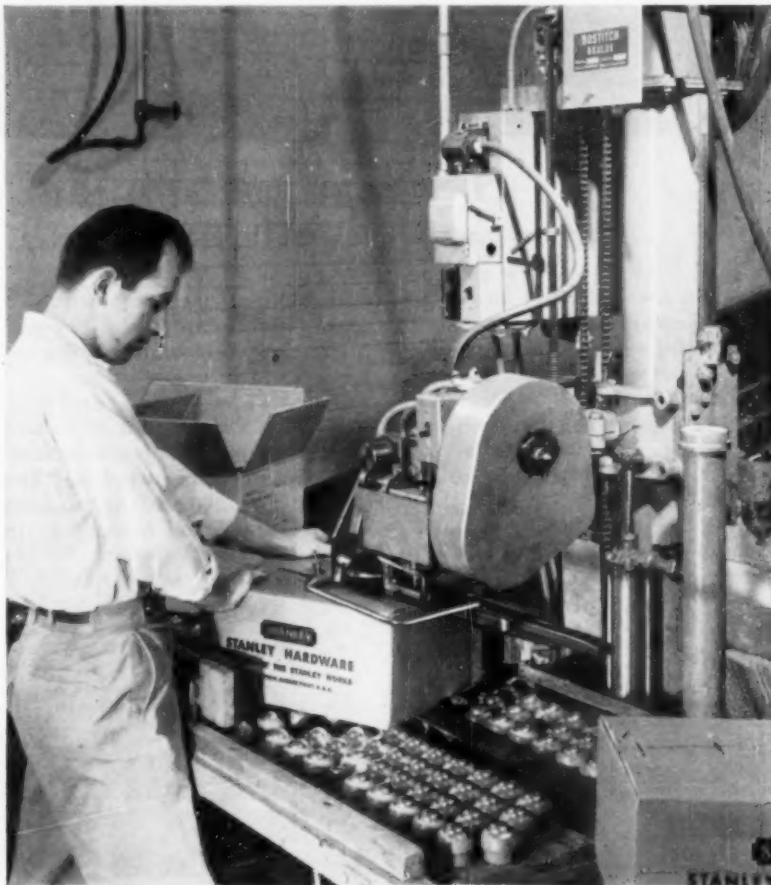
Easier handling and storage when door springs are looped and stapled.



Stapler sets up accessory cartons as needed. Saves space and handling.



Fastening box tops and bottoms simultaneously with staples earns 60% time saving.





Stapling ends of long narrow boxes is "best method." Saves time, cuts cost.



Operator simultaneously tacks wooden plugs in ends of paper tubes with tandem stitchers.



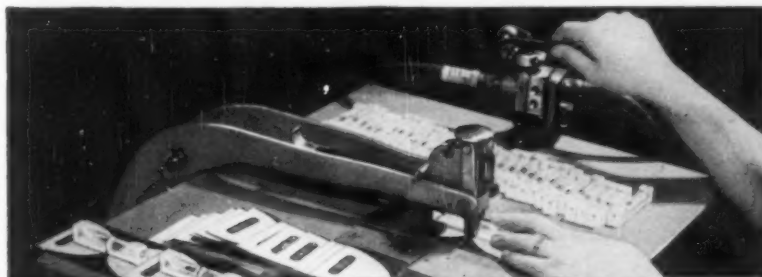
Stapling box bottoms as needed — releases storage space for work space.



Staples seal screws in envelopes or bags — faster, cheaper than adhesives.



Long, narrow 5-panel carton stitched full length with tucker blade. Faster than taping.



Carding small items with staples increases sales appeal, cuts packing time and costs.



Handsome cartons help sell tools. Staples seal them strongly, preserve appearance.



Versatile Autoclensh staples boxes of different sizes from outside. Clean, fast.



Stapled box corners stronger than glued. Operator learns in days instead of months.



Better warehousing control results from stapling "move" tickets to cartons.

Fasten it better and faster with



Mail this for more information:

BOSTITCH, 445 Briggs Drive, East Greenwich, Rhode Island

- ☐ Send 12-page Plant and Office broadside
☐ Send 8-page Shipping Room booklet

- ☐ Ask a Bostitch Economy Man to call on me
☐ Send me specialized information on

Name

Company

Address

City Zone State



HE DOESN'T KNOW IT, BUT WATER CAN BRING DOWN A JET

*New Bendix super filter
safely removes water from jet fuels*

Eliminating water from jet fuels is important. Because jets fly high—where temperatures range many degrees below zero—water freezes, and ice can clog fuel systems and cause a flameout. Adding to the problem is the fact that, unlike ordinary gasoline, jet fuels have an actual affinity for water, thus more water must be removed.

The new Bendix filter-water separator solves this problem by literally drying the water out of jet

fuels before it enters the airplane. It also removes other impurities. Whereas military standards formerly permitted the retention of approximately $\frac{1}{2}$ gallon of water per 1,000 gallons of jet fuel, the new Bendix* Filter leaves less than a harmless thimbleful. No matter how much water was originally present—even in aircraft carrier operations where salt water is sometimes pumped into shipboard fuel storage tanks to minimize vapor hazards—the Bendix

Filter allows only pure jet fuel to enter the plane's fuel tanks.

Our Bendix-Skinner Division is a leader in the filtration field. It makes this and many other types of air, oil, fuel and hydraulic fluid filters for many automotive, aviation and industrial applications.

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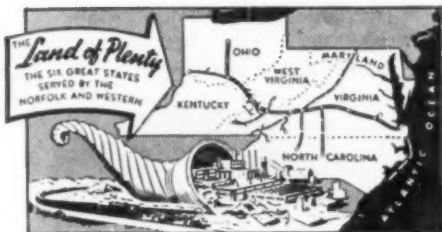
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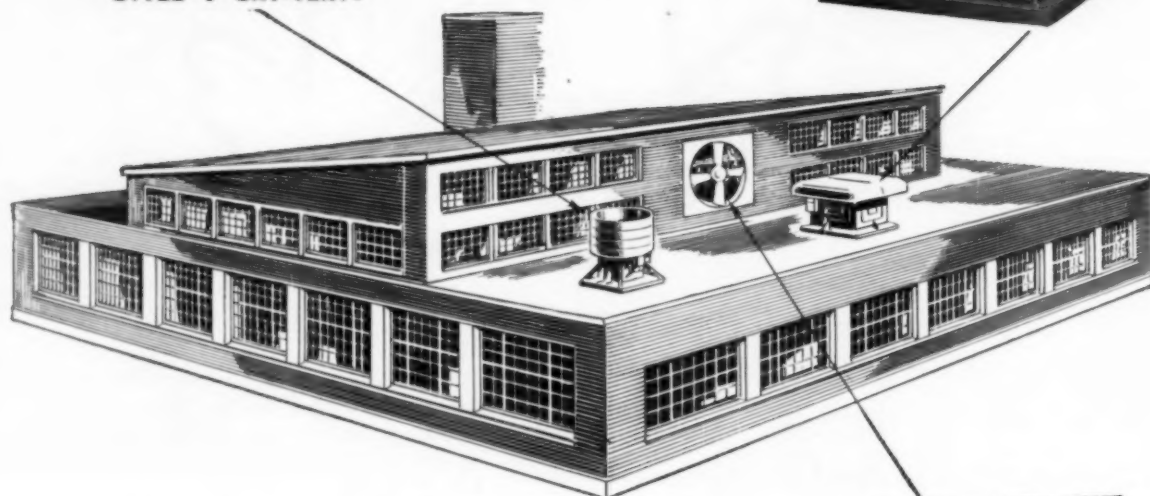
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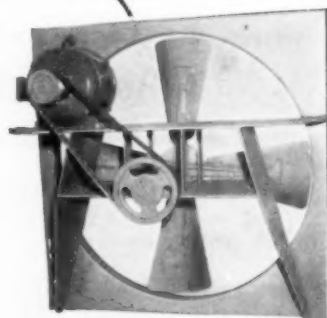


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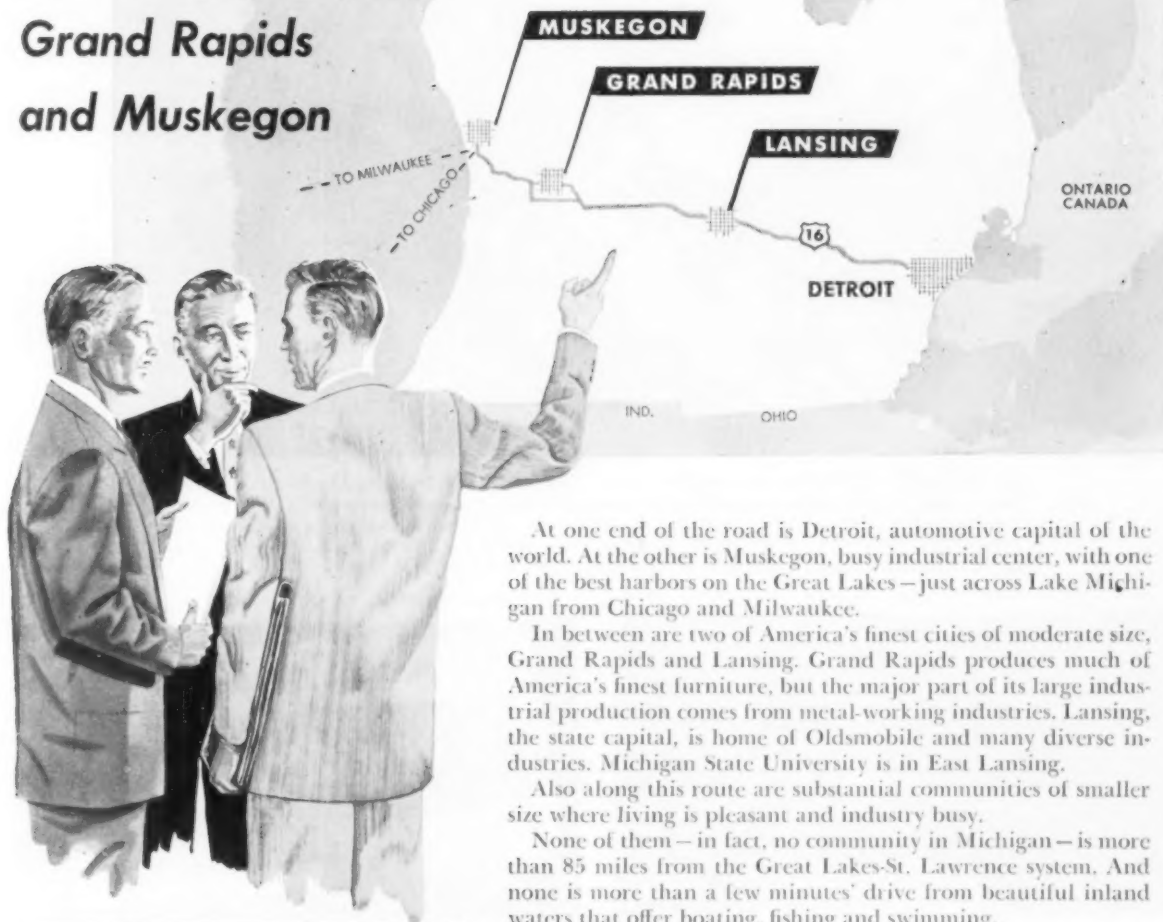
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BUSINESS OUTLOOK

BUSINESS WEEK

MAY 18, 1957



Don't take all the talk about higher steel prices at face value.

Increases averaging \$8 a ton and more are being discussed, to be sure. But this may be in part strategic—to get customers in now.

A top of \$7 a ton is more logical (BW—Apr 20'57,p44). And you may be able, by bargaining, to chip something off list in any event.

One simple fact gives you your clue on steel prices: **Customers are being offered some concessions even now.** (This despite the fact that a few buyers already are hedging on higher prices with advance orders.)

Iron Age reports these phenomena, side by side, in today's market.

This tells you, as plain as words, that **whatever increase is posted on July 1 will be an asking price.** It will go on the books against the day when demand picks up and mills can exact full official prices.

New orders for steel may rise a bit in the next few weeks in anticipation of higher prices. But there is **no real bulge in demand in sight before the autumn.**

Even some of the tighter steel items, such as plate and pipe, have become a little more plentiful as demand for other products eased.

Steelmen look for their operations to drift lower, bottoming in July or early August. At that time the auto people will come in for steel to build new models—and other customers will act accordingly.

Inventories all around will be low enough so buying could be brisk. The next test—how the new cars sell—will be faced in later winter.

Auto output for the second quarter apparently will run fairly well ahead of 1956. April just about held its own while May and June should top last year's low figures very comfortably.

We haven't quite 1956's new-car glut to depress output this year.

The industry has backed down from 1.7-million plus to about 1.6-million for this quarter. But last year's turnout was only 1,450,000.

Trade estimates put the **stock of cars in dealers' hands** a little over 700,000 now. That isn't low (even in these days of stocking colors and styles to suit all buyers) but **it's 200,000 under a year ago.**

March registrations of new cars, on which the count has just been completed, came to 574,000. That was only 60,000 less than in 1955 and a **fine March figure** by any other standard of comparison.

Moreover, the jump over February was well above average.

Nevertheless, **first-quarter registrations barely nosed ahead of 1956,** totaling 1,450,000, and reports on current sales are less than ecstatic.

Auto output this year should easily top 6-million (to beat 1956 by over 200,000) but whether sales will, still puzzles Detroit.

Much depends, as auto men see it, on the fourth quarter.

This is not entirely a question of resting their faith on new models. It's also **a matter of the time purchaser.** For, by late 1957, a very large

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

MAY 18, 1957

part of the 1955 installment paper will have been paid off.

Few expect that this will mean a repetition of 1955's buying surge (nor do they want one if it means 36-month terms again), but at least the 1958 buyer will own the 1955 car he presents for a trade-in.

Higher output in the auto industry this year has a distinctly beneficial influence on the **level of employment**.

Jobs in the auto industry declined by about 200,000 in the first four months of 1956; this year's drop has been less than half that much.

Over-all, **employment continues to rock along at record levels**.

More than 64¼-million workers were holding jobs when the Census Bureau made its April check. Yet the year-to-year gain has been shrinking.

Last month we were only half a million ahead of 1956. However, non-farm employment was up by 1.1-million (fully offsetting the drop of 600,000 in agriculture, which was partly due to bad weather in the census week).

Employment in manufacturing, despite greater stability in the auto industry, has fallen somewhat more from last autumn's peak than it did in the same 1955-56 months.

The drop has been 450,000 against 300,000 a year earlier.

This difference isn't large, to be sure. And the total remains close to 16.8-million. Nevertheless, factory employment now is down to its year-ago level and 540,000 less than at this season in 1953.

Symptomatic of the present tight labor market is the **number of people who are working part time**, apparently as a **matter of choice**.

About 9.6-million workers put in less than 34 hours on the job in the week of the April nose count. Of these, some 3.1-million were working short time because they had no option.

But close to 6½-million customarily work a short week (presumably, as in the case of housewives, because that's all they want or need). This **"usually work part time" total is up fully 400,000 in a year**.

Manufacturers' efforts to control costs (along with short work weeks due to slack in some industries) continue to nip away at the **size of weekly pay-checks**. April's average of \$81.80 for factory workers was about \$2.25 smaller than the December peak though \$2.80 better than a year ago.

Retail sales figures continued in their slight down-drift during April, according to the Commerce Dept.'s seasonally adjusted figures.

The decline so far, however, is too small to be considered significant. And the year to date remains better than 5% ahead of 1956. Moreover, when the difficulty of adjusting for so late an Easter is considered, the April decline might be nothing more than a statistical slippage.

Recent reports of easier mortgage money find no reflection in the bids on the standard 5% FHA-backed liens. Nationwide, the discount on purchases of such paper averaged 2.7% in April, the same as in March.

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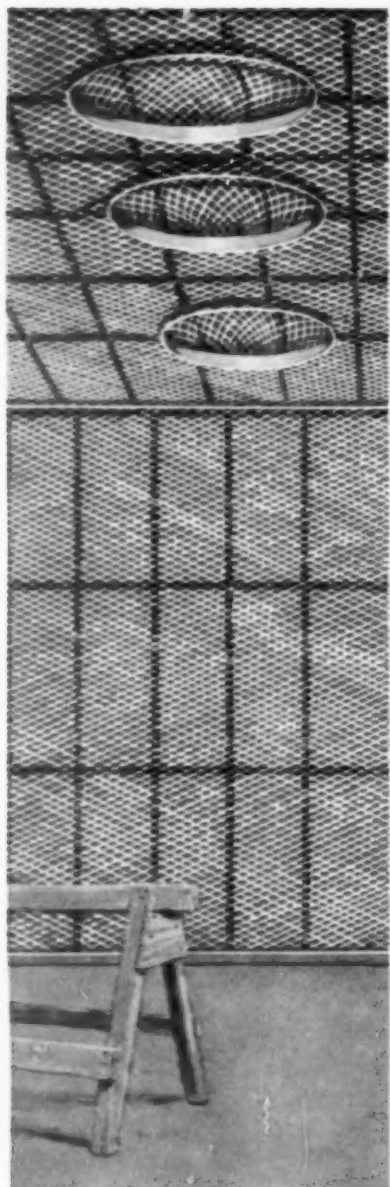
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Defending His Budget

PRES. EISENHOWER began appealing to the country this week in defense of his budget—and of his brand of Republicanism.

His opening move, a TV address, restated familiar arguments in defense of his \$71.8-billion spending plans for the next fiscal year. He stressed the costs of security and the costs of special programs set up by Congress, such as those for veterans and farmers. He stoutly defended one new program—that for school construction grants. But he made no appeal for listeners to write congressmen in defense of his budget. And at a press conference the next day, Eisenhower made it plain he won't try to punish Republicans who

still oppose his spending recommendations.

- **Still Cutting**—Congress isn't waiting to find out if the President can drum up a widespread defense of the budget. It is going on cutting.

- The Senate sustained House cuts on Treasury and Post Office appropriations.

- The Senate Appropriation Committee cut \$714,000 in the State, Justice, and judiciary money bill. It lopped another \$16-million from funds for the embattled U.S. Information Agency.

- A House subcommittee recommended a \$272-million cut in farm appropriations, mostly in the soil bank.

- **New Roles**—Democrats are eagerly

embracing the role of budget-cutters, after years of defending the spending programs of Democratic Presidents and generally supporting Eisenhower's estimates during his first term. Republican leaders in both the Senate and the House continue to oppose Eisenhower's budget for next year, confidently predicting cuts of more than \$3-billion. Eisenhower is hoping for a groundswell of support for modern Republicanism.

In the meantime, another significant political shift appears—the drift of the business community away from Eisenhower, after warmly supporting him in the 1952 and 1956 campaigns. To learn about this, turn the page.

✓ **"Ike's turned out to be no better than Truman and the New Deal crowd..."**

— a *Midwestern banker*

✓ **"Eisenhower's all right, but he's surrounded by a bunch of socialist egg heads..."**

— a *New England industrialist*

✓ **"If we can't cut government spending with a Republican in the White House, then we're heading for a bust..."**

— a *Southern executive*

✓ **"Until we reorganize the party along sane lines, I'm not going to contribute a dime..."**

— a *West Coast executive*

✓ **"If George Humphrey leaves the cabinet, economy goes out the window..."**

— a *Midwestern executive*

Businessmen vs. Eisenhower

The budget ruckus has brought into the open the disenchantment many businessmen are feeling with the Eisenhower Administration and its policies. Although the fight focuses on spending, it involves an important struggle for control of the Republican Party.

THE STATEMENTS displayed above, gathered by BUSINESS WEEK reporters in off-the-record interviews with businessmen across the nation this week, are one indication of a rising tide of business discontent with the Eisenhower Administration.

Much of this discontent is little more than the normal resentment that always lurks close beneath the skin of any businessman paying high taxes. This spring, the battle over the budget between Congress and the Administration has brought a lot of these feelings to the surface.

But not all the grumbling is normal. Some of it is definitely spurred by organized campaigns carried on by the National Assn. of Manufacturers and the U.S. Chamber of Commerce. The overtones are being heard in business conventions from New York to San Francisco, in the club cars of the Congressional and the 20th Century Limited, in Washington's International Airport—wherever businessmen gather.

It is apparent, too, at the series of regional conferences being held by the GOP, in preparation for the 1958 Congressional elections, in such cities

as Providence, R. I., Omaha, and Salt Lake City. For the grumbling over the budget is intimately connected with the future of the Republican Party.

• **Lost Love**—The souring of business sentiment toward what has generally been labeled a businessman's Administration was clearly evident at the spring meeting of the Dept. of Commerce's Business Advisory Council, held last week in the secluded luxury of the Homestead, in Hot Springs, Va.

The BAC meeting, attended by more than 100 top business executives and Administration officials, devoted its formal, closed sessions to discussions of the economic outlook, foreign aid, atomic energy. From cursory press briefings, reporters could learn only that businessmen were moderately optimistic about 1957 prospects. But in informal

conversations, BAC members freely gave vent to sharp criticisms of the Administration and its policies.

Although the BAC's top-drawer membership is largely Republican in its sympathies, this did not soften the attack on the Administration. On the contrary, many businessmen expressed the view that they had been "let down" and "betrayed" by the Administration they have supported.

• **Not Unanimous**—By no means all businessmen, either at the BAC meeting or in major cities throughout the nation, are voicing discontent. The GM official who last week blasted Eisenhower's "unsound monetary policies and New Deal-inspired international WPA" is an exception. Many businessmen, in fact, exempt the President himself from any blame, and some find no fault at all with the Administration. But there is no question that the business community as a whole feels a deep-seated disillusionment.

One measure of the extent of this disillusionment is the total absence of vocal enthusiasm for the Administration by businessmen and business organizations. Through Eisenhower's first four years, there was no lack of business support for the President and for most of his policies. It was apparent not only in speeches and campaign contributions but in the willingness of executives to give up their positions to take jobs with the Administration.

Now, however, many prominent businessmen not only refrain from public praise but indulge in private attacks. Moreover, a conspicuous number of executives are leaving top Administration posts. Among those already gone are Reuben B. Robertson, president of Champion Paper & Fibre Co., who served as Deputy Secretary of Defense, and Charles S. Thomas, president of Foreman & Clark, Inc., who has just resigned as Secretary of the Navy. Among those slated to leave are Secy. of Defense Charles E. Wilson, Secy. of Treasury George M. Humphrey, and Under Secy. of the Treasury W. Randolph Burgess.

• **Situations Not Wanted**—The Administration would have had little difficulty getting suitable replacements from the ranks of top executives any time in Eisenhower's first term. But now many top businessmen are reluctant to serve in an Administration in which, they feel, their views are being given short shrift. As one BAC member put it last week: "I wouldn't become a member of the Administration for all the tea in China. I would only be banging my head against the wall like George Humphrey."

George Humphrey, who was in attendance at the Homestead both as a former chairman of the BAC and as Secretary of the Treasury, is a rallying



PRIVATELY, Commerce Dept.'s Business Advisory Council talked of discontent.

figure for the business revolt. Although he himself is now supporting the President over the budget, his original misgivings about government spending have stimulated much of the resentment that businessmen now feel.

1. The Budget Issue

The Administration's spending plans outlined in the 1957-58 budget are the focal point of business discontent. And the budget has spurred a well-organ-

ized drive for economy that is now in full swing.

• **Prime Movers**—The NAM and the Chamber are spearheading the attack against the budget, with rallies (including a reenactment of the Boston Tea Party) and a big letter campaign. The American Farm Bureau Federation is supporting their efforts. Next week, a group of 19 professional and industrial organizations is meeting in Chicago to map plans for a concerted budget-cutting drive. Even the Committee for

Economic Development, which ranks as the most broad-minded of business groups, published a statement this week proposing tax reductions next year based on cuts in government spending.

As the Chamber and NAM see it, the fight for economy this spring represents "the last chance" to bring government spending under control. Their main argument is that if expenditures are allowed to soar at a time of high prosperity—and while a Republican occupies the White House—then "big and unjustified spending will have become a fixed, unchangeable pattern in our way of life."

• **Where to Whittle**—There is little disagreement over just where the budget can be cut. The Chamber and NAM both feel that foreign aid must be reduced. And most economy-minded businessmen favor cutting it to the bone, although few go so far as one Midwest executive who stated: "We will all end up in the poor house unless we stop handouts to foreigners."

The NAM has a specific program to reduce the budget by a minimum of \$8.2-billion. Besides a cut in foreign aid of \$2.2-billion, it recommends a \$1.9-billion cut in military spending, and more than \$4-billion in other areas, including a 20% cut in the budget of the Dept. of Health, Education & Welfare. The Chamber, which calls for a cut of \$5-billion, agrees with the NAM over pruning foreign aid, school construction, and most other social services. It, too, believes that defense need not be considered a sacred cow when it comes to cutting the budget.

II. The Policy Fight

Individual businessmen are much less sure than their organizations are that any cuts can be made in defense. On this score, they do not question Eisenhower's judgment. But most businessmen who think the budget is swollen would like to see cuts in grants-in-aid to the states. One executive, protesting against the drought relief provided Texas, explained: "I don't see why federal money should be provided for the richest state in the union. That's a trend that must be stopped."

• **Old Guard**—The fact is that a hard core of orthodox Republicans has never been content with the President's budget policies. This group is well represented in the NAM, which railed last year against the rise in spending contained in the 1956-57 budget. They are vehemently opposed to most of the social services that Eisenhower supports. From this orthodox view, Eisenhower's concept of Modern Republicanism (BW-Nov.10'56,p36) is just as distasteful as the platform of Thomas E. Dewey and the actual policies of the Fair Deal. As Ernest Swigert, president

of the NAM and the Hyster Co., sees it Eisenhower is "paving the way for socialism."

In Midwestern cities like Chicago and Milwaukee, this is the prevalent view among businessmen. GOP leaders in these areas admit that business supporters are against Modern Republicanism and are sniping at Eisenhower for apostasy. In Sheboygan, Wis., last week, a party meeting agreed with the speaker who warned that "left wing or leftist Republicanism is not going to go over in Wisconsin."

• **Broad Base**—But the dissension in the business community extends far beyond the comparatively small group of orthodox economizers who have been cool toward Eisenhower ever since the convention of 1952. Much of the broader attack on the budget is based on the belief that if spending is reduced, taxes can be cut. Many businessmen are quoting Chamber of Commerce statistics showing that the Eisenhower Administration "in a little more than five years of its existence will have collected more taxes than did the whole Truman Administration, which lasted 7½ years."

There are many businessmen who agree that taxes are too high but who are not joining the chorus for a cut in spending. To do so, they feel, will mean the certain end of the Republican Administration. "We are cutting our own throats by attacking Ike," said a West Coast businessman. "No matter how much the Democrats may now be talking economy, they would make Eisenhower look like a piker." Similarly, some businessmen take Humphrey to task for making public his discontent with the budget.

But this sympathetic attitude is not shared by a majority of the business community, certainly not among executives of small and middle-sized firms who bulk large among members of the NAM and the Chamber. One member of Eisenhower's Cabinet argues: "A lot of businessmen are being short-sighted in attacking the Administration. We haven't abandoned economy—it is just that the times call for a bigger budget. But too many of our supporters are thinking only of taxes and their own interests, not of the needs of the entire country."

III. Divided Administration

Some businessmen feel that part of the trouble is that the Administration has been remiss in stating its own case. Wherever it has made an effort to explain the reasons behind its budget policy, resentment has moderated. At the GOP regional conference in Salt Lake City, for example, Atty. Gen. Herbert Brownell's defense of the budget drew such comments as "I'm not nearly as

concerned as I was before" and "those of us who have been beefing have been taken for a ride by the Democrats."

There is no doubt that the tactics of the Administration—and of Eisenhower himself—contribute to the discontent of the business community. Many political observers feel that there would have been no more than the usual budgetary tug-of-war between the Administration and Congress if Humphrey had not publicly warned against higher spending and if Eisenhower had made a strong defense of the budget earlier than he did.

• **What They Said**—Certainly, Secy. Humphrey's outburst was unprecedented. The Democrats quickly seized it as a chance to make political capital. So did the perennial advocates of lower spending. The NAM, for example, cites Humphrey as being on its side in the budget fight, and it has used his curly-hair remarks in its campaign to cut spending.

Eisenhower apparently failed to realize the seriousness of the attacks on the budget. Although he declared that the American people "deserve the kind of services this budget provides," he also suggested that Congress had a duty to make cuts. Then, apparently bowing to pressure, he ordered an administrative review of the budget. Later, he came out against any substantial cuts, and specifically supported the foreign aid and school construction programs. But he has also asserted that there is no disagreement between him and Humphrey.

Nor has any attempt been made to rebuke other Administration officials who expressed doubts about the budget. For example, the very day that Eisenhower stated that a \$2-billion cut in the budget would be too much, Treasury Under Secy. Burgess testified before Congress that the budget could safely be cut from \$2-billion to \$3-billion. This week, on the eve of the President's television address in defense of the budget, his assistant Sherman Adams said that a \$1-billion to \$2-billion cut "will not interfere" with the Administration's program.

The indecisiveness of the Administration about its own budget has served to encourage the fight for economy. Administration critics claim, for instance, that Eisenhower is against increased government spending—it's his advisers who are responsible for the new budget. But the President's speech to the nation this week made clear that he is taking full responsibility for the Administration's spending program (page 39).

• **Reasons Why**—There are a number of reasons for Eisenhower's slowness in defending the budget. For one thing, he was intimately involved with the Middle East crisis at the time of the original dispute. For another, he lacked

the kind of advice that Arthur Burns, former chairman of the Council of Economic Advisers, used to provide. Raymond Saulnier, who took over from Burns, was too new in the job to have established the kind of close relationship with the President that Burns enjoyed.

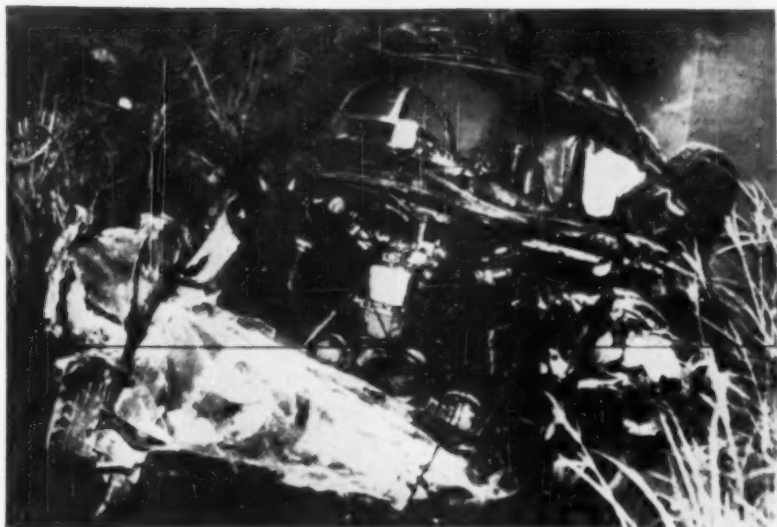
Then, too, Eisenhower is a lame-duck President. The orthodox wing of the Congressional Republicans, which outnumbers the Eisenhower supporters, has made no bones about its desire to regain control of the party. To Sen. Styles Bridges of New Hampshire, the President's Modern Republicanism is "a mere catch phrase," while Sen. Barry Goldwater of Arizona considers that "it is the New Deal under another name" and insists that Eisenhower's advisers "have no right to call themselves Republicans." This orthodox group has succeeded, so far, in stalling Eisenhower's entire legislative program.

• **Public Airing**—At any rate, the private conflict within the Administration was allowed to remain public. On the one hand, a number of government officials—including Vice-Pres. Richard Nixon; Gabriel S. Hauge, the President's assistant for economic affairs; HEW Secy. Marion Folsom, and Atty. Gen. Brownell—have defended the budget on the grounds that an expanding production and population require a rise in government expenditures. But Humphrey, on the opposite tack, said that "as our economy produces more, it does not mean that the government must spend more. . . . Just the opposite is true."

This conflict within the Administration has played into the hands of conservative Democrats and right-wing Republicans in Congress. Humphrey finally made a public speech in support of the budget last month, but by that time Sen. Harry Byrd (D-Va.) had termed Eisenhower's program "the most irresponsible budget submitted in my day." And a host of Republican leaders, including Sen. William F. Knowland and Rep. Joseph Martin, Jr., had demanded budget cuts of at least \$3-billion. They are firmly convinced that the budget is too big, and—what's more—they see an opportunity to gain control of the GOP.

It is clear that what is at stake in the battle of the budget is not only the level of government spending but the leadership of the Republican Party. The present Congress is already in full-scale revolt against the President's program, and much of the business community feels just as strongly.

It will not be easy for Eisenhower to turn the tide in his favor. The President's staff, however, feels that his strategy of taking the Administration's case to the people will pay off.



The Price of Road Racing

IN ITALY'S 25th running of the Mille Miglia (Thousand Mile) road race last Sunday, this tangle of wreckage accounted for 11 lives: the driver, the 28-year-old Marquis Alfonso de Portago of Spain; his American co-driver, and nine spectators, including four children.

It may also have accounted for the end of the Mille Miglia in its present form, the last of its kind of Europe. Public outcry over the death toll—two others, a race driver and a motorcycle policeman, also lost their lives Sunday—led the Italian government to threaten cancellation of future races.

• **Race May Be Tamed**—In the outcry over the Marquis' crash, it looked as if the race might be discontinued entirely. But Ferrari and Maserati are reported ready to agree that the Mille Miglia is no place for their highpowered racers. They hope to save the event for stock cars.

The Mille Miglia has special hazards for both drivers and spectators. The road has something like 7,000 curves; it was never built for cars that can top 185 mph., like the special jobs that have dominated the race for years. And the spectators—3-million turned out for Sunday's race—can't be controlled over so long a course.

"They seem to have no fear of the cars, which are skipping along the road barely touching down every few feet, as a rock skips over water," says a BUSINESS WEEK reporter who has watched many road races. "The crowd will completely block the road, then move back as each car comes along, leaving barely room for the car to hurtle through."

• **Too Costly**—In 1953, the Pan American road race down the length of Mexico (about 1,950 mi.) was discon-

tinued after taking 12 lives that year. In France, the 24-hour Le Mans endurance race was nearly abandoned after a car exploded in the grandstand crowd in 1955, killing 90 and injuring another 90 spectators.

• **Second Thoughts**—Although some enthusiasts contend that Sunday's death toll in the Mille Miglia was no greater than that of a normal weekend on the same roads, the trend is clearly toward track races and courses of the Le Mans type. And even there, car manufacturers have cooled off.

They like the sales glamor that a "hot race car" casts over their entire line, but some felt they had no chance against the special Ferraris and Maseratis. Others say the track races and the events where cars are classified by type give them a better chance to test engineering developments.

• **Testing Ground**—From the manufacturer's standpoint, sales effect aside, the justification for the great expense of maintaining a factory team of racers is the chance to test mechanical features.

Thus, disk brakes first appeared in Jaguars in the 1956 Le Mans race; now they are becoming standard equipment on several passenger cars. Racing gave field-tests also to turbo-braking drums, servo brakes, intermittent fuel injection, and new rear axle designs.

• **Popular Hold**—From the public's standpoint, racing is a thrilling spectator sport. And if racing can be preserved in a safer form, Europe can be counted upon to do it. Says a BUSINESS WEEK reporter in Paris: "Auto racing—like wine, women, and soccer—is too deeply ingrained in European life to be banned by what happened in Italy or what may happen at Le Mans next month."



LUXURY LINE represented by this \$10,000 Mercedes-Benz Roadster balances new stripped-down Studebaker in preview as . . .

Studebaker Shows Its New Hand

THIS WEEK Studebaker-Packard Corp. lifted the curtains a bit on what it hopes will become the long-sought solution to its problem of staying in the automobile business.

At private showings in New York's Waldorf-Astoria, the company displayed a sampling of its line of cars that will be coming out over the next several months. They varied from the stripped-down Studebaker Champion, renamed the Scotsman (factory list: \$1,776), to the luxury and sports models of Germany's Mercedes-Benz (top price: \$13,000, ranging down to about \$4,000). Also shown was the 1958 Packard Hawk, closely matching the low-slung Studebaker Golden Hawk.

On hand for the showings were the press, leading industrialists and bankers, and regular and prospective dealers.

• **Confidence**—Roy T. Hurley, chairman and president of Curtiss-Wright Corp., which runs Studebaker-Packard under an unusual management contract, greeted them all with these confident predictions:

• Studebaker-Packard will "be in shape for a very good 1958."

• The economy Scotsman—in two-door, four-door, and station wagon models—will be introduced around June 1,

and will give dealers an important low-priced line to tap the second-car as well as the "first owner used-car" market (the people who first become auto owners by buying a used car).

• The arrangement with Daimler-Benz A. G., German manufacturer, under which its Mercedes-Benz passenger car and truck line will be sold by selected Studebaker-Packard dealers, is going to supply a luxury market that is "much bigger than expected."

• Packards will continue to be made—as the 1958 Packard Hawk to be introduced in the fall proves.

Said Hurley: "We are not out to compete with the U.S. auto industry. We're going into another business—no volume race, but very fine, high quality cars."

• **Question of Goals**—Neither Hurley nor Carl F. Giese, president of Daimler-Benz of North America Inc., was specific about sales goals however.

Last year, the Mercedes-Benz, through Hoffman Motor Car Co., sold about 4,000 cars in the U.S.

Hurley and Giese say that one guess for the future—13,000 by 1958—is too low. They say Daimler-Benz will expand its facilities in Stuttgart.

On the other hand, D-B top officials

in Germany told *BUSINESS WEEK* that they don't consider the U.S. market is big volume for them in passenger cars. But they do see a big future for their non-passenger car products—marine and stationary diesels, and the Unimog, a jeep-like vehicle. These products will be sold through Curtiss-Wright's Utica-Bend subsidiary.

• **Dealer Doubts**—There seemed to be even more uncertainty about passenger cars among dealers at the showings.

The reaction seemed to be (1) puzzlement about carrying the Mercedes-Benz line and (2) enthusiasm about the Studebaker-Packard Scotsman.

One group of three agreed to this comment: How can we sell a \$13,000 car? But that Scotsman—I'm going to offer it at \$1,795 with a \$29 radio. It'll go."

A Connecticut dealer disagreed, said he'd like to buy three of the Mercedes models "if they'll make the right kind of deal with me on parts and service."

Actually, Studebaker-Packard is planning right now to pick only about 400 dealers out of its 2,300 to carry the Mercedes-Benz, concentrating first in New York, Chicago, Los Angeles.

So far, few if any dealers have signed up under the Mercedes deal.

Atomic Hands Across the Sea

● The U. S. will probably come to the aid of friendly nations abroad that are developing nuclear power.

● In the Euratom group alone, it would mean a market for \$500-million worth of reactors and other equipment.

● What's more, lessons learned in Europe now would help nuclear power programs at home in years to come.

A far-reaching program of U. S. help in the development of atomic power abroad may soon begin to emerge from Washington. In the Administration, Congress, and private industry there is evidence of new interest in the subject, and several tangible proposals are pending.

One reason, of course, is that foreign countries—where conventional fuels are scarcer and more expensive than in the U. S.—will find nuclear power commercially competitive with other types at least a decade earlier than the U. S. will. But the time lag at home is not due only to the relative cheapness and abundance of ordinary fuels here:

- Costs of building nuclear power stations in the U. S. have risen more than 30%, on the average—and are still climbing.

- There is still conflict between public and private power interests over who is to build and run the facilities.

- Insurance companies balk at the huge liability coverage considered necessary for the plants in case of catastrophe—and Congress is sitting on a federal re-insurance proposal.

- It seems unlikely that an economy-minded Congress will be dispensing subsidies for domestic power projects anyway.

- **Advantages Abroad**—Because of the delay, the U. S. now has excess capacity to produce and service nuclear power equipment, and there are strong economic pressures to take up the slack by playing a major role overseas. In Western Europe alone, U. S. industry would gain a sure market for \$500-million worth of equipment at the outset, plus additional revenues from licensing deals with European companies expected later. More important, Europe would become the first major proving ground for nuclear power—and, in 10 years or so, when it becomes competitive in the U. S., that experience could be a big help.

There are also powerful foreign policy reasons for U. S. atomic aid. For years, Pres. Eisenhower and the State Dept. have felt that the U. S. lead in peaceful uses of atomic energy should be used to strengthen the free world. In years

to come, after all, the advantage will diminish as other countries catch up—and as the Russians begin offering nuclear equipment, fuel, and knowhow for export. This thinking led to Eisenhower's "Atoms for Peace" program.

I. Overseas Needs

Whatever part the U. S. eventually decides to play, the other nations are pushing their own plans for nuclear power. They have two principal reasons:

- Rapid economic expansion is squeezing supplies of conventional fuel more and more tightly. On paper, nuclear power is already competitive with traditional types in many places.

- The Suez crisis underlined what can happen—especially in Europe—by relying on the volatile Middle East for oil.

The most advanced programs, at the moment, are on European drawing boards. But an Inter-American Nuclear Energy Commission is in the works, within the framework of the Organization of American States, to survey Latin America's atomic power needs and potential. By preliminary estimate, this need may be 1-million to 1.5-million kw. per year. The Japanese devoted space at their Osaka trade fair to atomic energy (page 146), and a Tokyo conference this week improved chances for sale of U. S. reactors and other equipment in Japan. The need there is placed at an annual 1-million kw. for the next 10 years.

Great Britain recently doubled its nuclear power program. The target is capacity of 6-million kw. by 1965, at a total estimated cost of more than \$2.5-billion. But the British will need relatively little U. S. assistance.

- **Ready Market**—There's ample room for U. S. aid, however, in the nations linked in Euratom—the supranational atomic energy agency designed to coordinate nuclear power efforts in France, Germany, Italy, and the three Benelux countries. The Euratom Treaty, already signed, should be ratified by fall. And its members are striving for installation of 15-million

kw. of nuclear power by 1967—at a cost of more than \$6-billion.

Of this total cost, an estimated \$51-billion will be for capital investment in atomic power plants. That's more than twice the bill for facilities to produce the equivalent amount of power by conventional means. The investment would start slowly, but from 1965 on, it would rise to a peak of \$500-million to \$600-million a year—or about 1.5% of total investment in the six member nations. In addition, nuclear fuel inventory would cost about \$1.1-billion more.

In the beginning, perhaps 50% of the necessary reactor equipment would have to be imported from the U. S. and Britain, according to Euratom experts. Later, as the Europeans gained knowhow, they would produce more and more on their own, and this would reduce the 10-year average of equipment imports to 20%. Even so, the total foreign exchange expenditure for equipment would come to \$1.1-billion.

- **Another Billion**—Importing nuclear fuel during the 10-year period would cost \$1-billion more in foreign exchange—on the basis of present plans. These plans call for use of British-type gas-cooled reactors (which burn natural uranium) for half of the 15-million kw., U. S. pressurized water and boiling water reactors (which burn enriched fuel) for the remainder. The \$1-billion figure assumes that the Euratom countries will be able to produce for themselves the approximately 25,000 tons of natural uranium for the British reactors.

This foreign exchange burden would be a heavy drag on Europe's already precarious balance of payments. And the total investment would severely strain the tight European capital market.

II. Help From the U. S.

This is where U. S. assistance comes in. Already, Washington is ready to help with the foreign exchange problem. About \$500-million of the \$1.1-billion in reactor equipment would come from the U. S., and it's almost certain that the Export-Import Bank will agree to finance most of this, in much the same way that it finances U. S. exports of conventional power equipment.

Congress is also in the act. Rep. W. Sterling Cole (R-N. Y.) ranking minority member of the Joint Committee on Atomic Energy, has introduced a bill to provide \$100-million in direct aid. This would cover 50% of the cost differential between conventional and nuclear power stations built abroad.

- **Assists From AEC**—The Atomic

Energy Commission is mulling several proposals to help the Europeans and others overseas. These include:

- Giving foreign nuclear power projects as much research and development aid as domestic projects now get.

- Leasing enriched nuclear fuel abroad at 4% a year, with a five-year moratorium on lease payments. This is currently the practice in providing fuel for domestic projects, but the Administration up to now has insisted on outright sale of fuel to power reactors overseas. The savings to Europe would be substantial—instead of \$1-billion, the fuel cost would be about \$600-million in the first 10 years. Thereafter, annual fuel imports would come to about \$125-million, offset by about \$65-million in sales of plutonium byproduct back to the U.S.

- Providing foreign companies with facilities for prompt chemical reprocessing of spent fuel, at reasonable prices—at least during the initial period, when such facilities won't be available abroad.

- **Worries Not Over**—But there's some doubt whether even all this help will enable the Euratom group to handle the heavy internal investment. The problem isn't the absolute size of capital funds needed. It's a matter of displacing investment from export industries to power.

Without the nuclear power program, Europe's fuel import bill would rise from \$2-billion a year now to \$4-billion by 1967 and \$6-billion by 1975. To earn the foreign exchange needed for this, the nations would have to invest massively in plants to produce export goods. With the nuclear power program, they will save from \$600-million to \$850-million a year on foreign exchange, beginning in 1957, because of the fuel imports that won't be necessary—and the total 10-year foreign exchange outlay for nuclear kilowatts will be less than \$2-billion. So, on the surface, they will be in the black.

However, the nuclear power investment will be concentrated in a shorter period of time, it will fall almost entirely on the electrical industries—already financially overstrained—and it will be in a highly speculative new field, frightening to many investors.

- **Solutions**—There are several possible ways out. The U.S. might give direct subsidies, such as proposed in the Cole bill, although this seems unlikely with Congress in its thrifty mood. Some European officials are privately eyeing the World Bank—but here there are technical barriers. It's quite possible that at some stage Europe may turn to the private U.S. money market for help. Since it looks as if nuclear power expansion can pay its own way on the Continent, this may be a feasible solution.

Industry Tackles Atom Fusion

General Atomic's \$10-million research project is first crack in AEC monopoly of efforts to control H-bomb-type reactions—but there's a question as to how wide the crack is.

Industry finally has cracked the federal government's monopoly of the search for means to control thermonuclear reactions—or fusion reactions of the H-bomb type. But a number of businessmen wonder about the dimensions of the industry break-through.

General Atomic Div. of General Dynamics Corp. appears to be dead serious about its new thermonuclear research program. Backed by a combination of 11 Southwestern electric utilities, General Atomic says it is prepared to spend \$10-million on a four-year study. The work will be conducted at its new John Jay Hopkins Laboratory near San Diego.

- **Opening Secret Doors**—Efforts to control thermonuclear, or fusion, reactions have so far been confined to experimental work in government and university laboratories, financed and supervised by the Atomic Energy Commission. And AEC has done very little talking about what has been going on.

Industry people have been highly critical of this setup. For several years they complained that they could obtain no information whatsoever. This was a source of serious concern to companies that planned to build or buy atomic power reactors but feared the fusion process might soon make atomic fission obsolete for power production.

AEC in recent months has made available some information on fusion to companies that could prove they had good cause for seeking it. The utilities cooperating with General Atomic have set up the Texas Atomic Energy Research Foundation which, in turn, has qualified under AEC's rules to receive information on the government's controlled fusion research.

- **But Not All the Way**—Reliable sources say the amount of information available to companies and individuals approved for it by AEC is substantial. But advanced stages of fusion research still are kept under wraps. For example, experimental devices designed to produce the fusion reaction are in the hush-hush area. So, presumably, when General Atomic gets this far with its research, if not sooner, the project will become subject to AEC secrecy regulations, with all the detailed reports and other red tape they involve.

This is probably why no other company, to date, has come forward with its own controlled fusion research. The red tape involved in living with government

secrecy rules looks too forbidding, particularly at this early stage when the research shows little or no sign of producing a marketable product.

So far the scientists still are looking for a device that will create and contain a fusion reaction—a machine to make use of the reaction will come later.

- **Long Range**—Spokesmen for General Atomic and the Texas Foundation emphasize the long-range aspects of their project. Their researchers, they say, will aim first "to demonstrate controlled thermonuclear energy conditions without immediate prospects for economical energy production from this source."

Eventual production of electric power from the controlled fusion of light atoms, such as those of hydrogen, is worth trying for because of the abundance of such materials in nature. The utilities supporting the General Atomic-Texas Foundation project say they, more than most utilities, can back such a long-range research program instead of concentrating on the more immediate fission power process, because they have ample supplies of cheap natural gas to fuel their power plants.

The foundation group has entered into a contract for General Atomic to carry on the fusion research, with money for the project coming both from the utility companies and from General Dynamics.

The John Jay Hopkins Laboratory for Pure and Applied Science is named for the late president of General Dynamics (BW—May 11 '57, p61), under whom General Atomic Div. was set up.

General Atomic also has a number of projects involving the fission process on the fire at the Hopkins lab. Scientists there are developing an atomic reactor that General Atomic plans to sell for research uses. The lab also is designing, for AEC and the Maritime Administration, a reactor to propel a merchant ship.

The utilities sponsoring the Texas Atomic Energy Research Foundation are Central Power & Light Co., Community Public Service Co., Dallas Power & Light Co., El Paso Electric Co., Gulf States Utilities Co., Houston Lighting & Power Co., Southwestern Gas & Electric Co., Southwestern Public Service Co., Texas Electric Service Co., Texas Power & Light Co., and West Texas Utilities Co.



NICARAGUANS man outpost in brief but heated border flare-up with Honduras.

Behind the Latin Jungle "War"

The smell of oil in disputed area, mixed with heat of Latin politics, set off the blast OAS has now checked.

Nobody has located oil there yet, but the search goes on. How quiet things stay depends in part on what they find.

EVEN IN Central America the "Mosquito Coast" (map) is considered an isolated, desolate, jungled area that everyone avoids who can. But last week the machinery of the 21-nation organization of American States went into action to halt a war there caused by:

- The smell of oil. Since the Suez crisis, the major U.S. oil companies have been frantically obtaining oil exploration concessions throughout Central America. Some geologists believe there may be oil in the disputed territory, and one company is now drilling offshore under a Nicaraguan concession.

- Latin politics and tempers. Honduras, probably the most backward of the Central American states, is governed by a three-man junta. Last fall when it took over from a one-man dictatorship, the junta promised a return to civilian government; but now it's apparently unwilling to give up power. By diverting attention to the border dispute, the junta members may have wanted to buck up flagging support.

If there is a moral in the story, it's that U.S. investors in Latin America can thank their stars for the OAS. Last week it proved again that it can avert costly wars when Latin temperatures go up. But it was touch-and-go for four days, at least.

The two countries have disagreed over the border for more than a century, almost from the time they achieved independence from Spain. But the area is desolate. So the border dispute has remained an issue for national pride, and nothing more.

- War and Peace—Then—just as Luis Somoza was being inaugurated with much pomp and ceremony as Nicaragua's president, taking over from his assassinated father, Anastasio Somoza—the blow came. Somoza announced that Honduran troops had invaded the Nicaraguan town (11 Indian huts) of Moricon. The inauguration audience of 45,000 people stoned and sacked the Honduran embassy; the Nicaraguans ordered general mobilization, and started moving their troops toward the frontier.

While the "war" turned out to be a comic opera affair—probably no more than two Nicaraguans and three Hondurans were killed in the whole affair—it could have been serious. Both armies are heavily equipped with U.S. materiel (picture). As it is, the 10-day mobilization cost each of the two countries probably \$1-million, and cut off traffic on the Interamerican Highway—almost all commerce came to a standstill. (Nicaragua's gross national prod-

uct was only \$140-million in 1956, Honduras' \$331-million.)

An emergency session of the OAS was called in Washington, and a five-man fact-finding commission rushed to the scene. After some hemming and hawing, it managed to negotiate a four-day cease-fire, then a more permanent agreement restoring the state of affairs that existed before the flare-up.

- Search For Oil—How long the agreement holds remains to be seen. Much depends on whether or not oil is found. Houston oilmen say the whole search comes under the heading of "extreme wildcatting," that there are no proved fields nearby, that because of the terrain and the climate, it's extremely expensive to get oil crews into the jungle.

Yet the search goes on:

- Houstonians John Mecom and Ernest Cokerell, Jr., several months ago purchased an interest in a 50-million-acre concession on the northern coast of Honduras that may extend into the Mosquito Bay area. But two wells turned out to be dry holes.

- Last July, the Honduran Congress granted a 10.3-million-acre concession in the Honduran northeast and northwest to Lester Foran & Associates of Corpus Christi. Testing is believed still going on.

- Offshore, J. Ray McDermott of Harvey, La., Waterford Oil Co. of New Orleans, and Warren Petroleum Corp. jointly hold an 11-million-acre concession in the Puerto Cabezas area, just south of the disputed region. They have started drilling and at last report were still active.

Truce at F-M

Settlement ends Penn-Texas attempt to gain control of Fairbanks, Morse & Co. But nobody really won.

This week, opposing sides in the bitter two-year battle for control of Fairbanks, Morse & Co. came to a negotiated settlement in which nobody won—but in which Leopold Silberstein and his Penn-Texas Corp. lost.

The settlement terms:

- Each side is to name five directors of the 11-man board, with an independent—J. D. Casey, head of A. C. Allyn & Co., Chicago investment company—as swing man.

The current Morse management stays in control of operations, with Pres. Robert Morse, Jr., remaining as chief executive officer.

- Penn-Texas sells to Fairbanks, Morse 300,000 shares of the latter's stock for \$50 a share. These will be held as treasury stock against possible conversion of a planned issue of debentures, and the total outstanding stock will be correspondingly reduced. Fairbanks, Morse will pay the \$15-million bill through sale of a new issue of convertible debentures.

- Penn-Texas will halt attempts to get control of F-M for five years—and Robert Morse will not participate in any proxy fight for control of Penn-Texas for the same period.

- **Moral Defeat**—The settlement reads as a truce. It leaves Penn-Texas with close to 400,000 shares after it sells the big block, just the same as the Morse group's holdings. But Silberstein was gambling for full control, and the settlement actually means a decided defeat for him.

For one thing, it leaves Penn-Texas locked into F-M with an investment of about \$20-million, but with no more decisive a voice in the Chicago-based machinery company than it had before the last fight started.

For another, it means a sizable cash loss. The \$50 price against the average \$53 per share Silberstein paid (F-M stock was selling in the \$56 range last week on the market) means a cash loss of nearly \$1-million, not counting the expense of the proxy campaign.

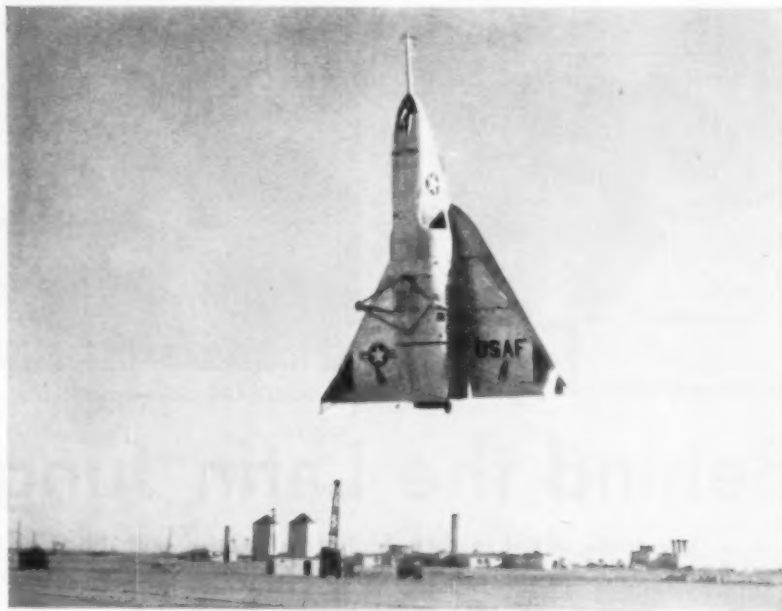
- **Compensations**—Actually, the financial loss to Silberstein may not be so bleak as it seems at first. By selling to F-M the stock he bought toward the end of the battle—and some of that went over \$70 a share—he can probably claim a capital loss, for tax purposes, of well over \$3-million.

And the 21% reduction in the amount of Fairbanks, Morse outstanding

stock proportionately increases the value of the Penn-Texas holdings.

There seems little doubt that Silberstein cast a majority of votes in the election, but when Morse pulled the battle into court, neither could afford an indefinite impasse with control in doubt.

Among other things, Silberstein still owed some \$15-million, with firm contract payment dates, on much of the stock he had "bought" and voted. The price he will receive for the 300,000 shares from Fairbanks, Morse will just about cover that and get him off the hook.



Jet That Heads Straight Up

The Air Force plane pictured above ascends vertically, then makes a quick transition to horizontal flight.

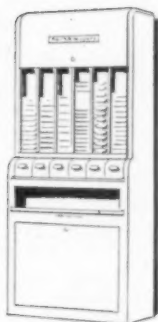
This experimental jet plane, the X-13 Vertijet, doesn't waste a second getting airborne. It starts off in vertical position (hanging from a horizontal cable by its nose), whooshes straight up into the air, then levels off and flies like any conventional jet. To land, it returns to a vertical position, descends toward the landing cable. The plane can hover at zero air speed until it has a chance to hook itself onto the cable. The hook under the plane's nose replaces the standard landing gear—and results in a 10% weight saving.

The Vertijet was demonstrated last week by Ryan Aeronautical Co., which built the plane for the Air Force. The vertical take-off is possible because the engine develops more thrust than the plane's over-all weight. Since high supersonic speed aircraft require powerful engines to begin with, Ryan says very little change in power requirements is needed to gain the benefits of zero-length take-off.

- **Advantages**—For the military, VTOL

(vertical take-off and landing) aircraft have some important advantages. They don't require airstrips, which means they could be dispersed over an area instead of concentrated at big air bases. They also could be carried by smaller ships than the carriers now required for jet bombers. VTOL aircraft are ideal for interceptor duty. They are 15,000 ft. in the air by the time a conventional jet is becoming airborne after a run down a 15,000-ft airstrip. And since wing shapes for VTOL's are not dictated by conventional landing speeds, they can be styled specifically for supersonic flight.

The experimental Vertijet tested last week can fly only about 300 mph. A Ryan engineer explained that there was no need to build it to fly faster because it is a research craft. However, the company's president, T. Claude Ryan, says the whole significance of the jet vertical take-off principle is for high supersonic use. He doesn't see VTOL, at least the straight jet version, as a practical possibility for commercial craft. For these planes, you need lots of weight carrying capacity at economical rates of fuel consumption. The best way to achieve this is to use wings instead of engine power to get the plane aloft.

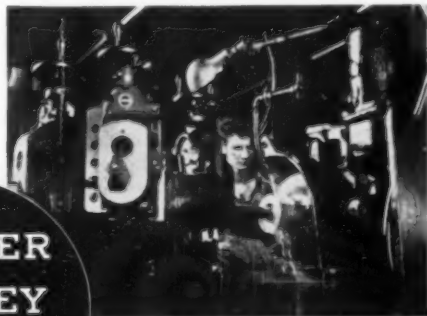


Voting Machine

Every time a coin is put in the slot and the lever pulled, that's a vote.

The gum or candy bars that get the most votes are the ones made by management and workers who cooperate to give the *best* and *most* gum and candy for your money. Management invests in best equipment and materials; workers use them wisely and well; the public benefits and so buys . . . workers benefit by better jobs, management benefits by better profits they can continue to use for better machines.

Millions of times every day America votes *for* good *value*, *against* high *costs*. Good workmen who use good machines well, *always* win that vote.

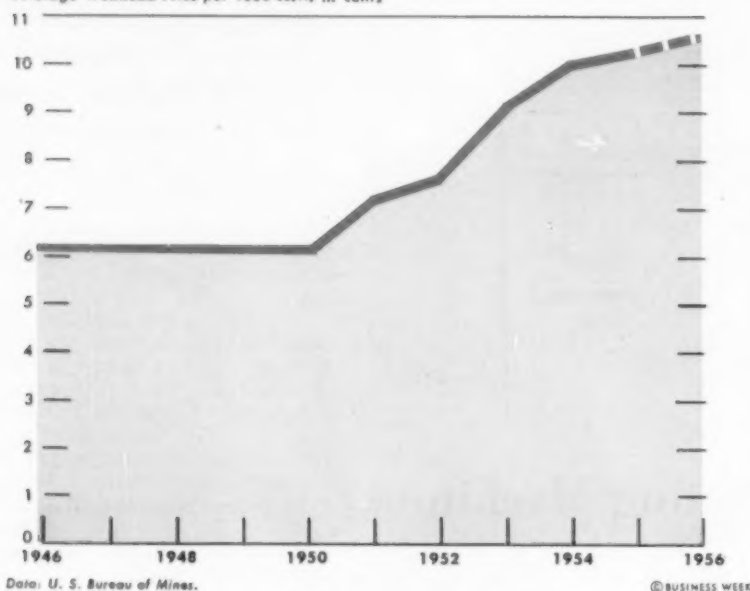


Warner & Swasey 1-A machining parts for paper-making machines

YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY MACHINE TOOLS, TEXTILE MACHINERY, CONSTRUCTION MACHINERY

Gas Prices Keep Moving Up

Average Wellhead Price per 1000 cu. ft., in cents



More Hikes to Come

With new fields getting harder to find and more expensive to develop, pipelines are willing to pay through the nose for big reserves.

THE STEADY CLIMB of the figures in the chart indicates that things are happening in the natural gas industry, but the figures tell only part of the story. Behind the scenes is a flock of factors pressuring prices upwards. One of these factors culminated in a recent deal that has gas producers whistling, and utilities and consumers up in arms.

The excitement centers around Tennessee Gas Transmission Co.'s contract to purchase, starting Nov. 1, a total of 175-million cu. ft. of natural gas per day of the offshore reserves of four producers—Continental Oil Co., Atlantic Refining Co., Tidewater Oil Co., and Cities Service Production Co. (the CATCO group). Officials estimate the reserves at 2-trillion cu. ft., but informed sources put it up to as high as 5-trillion cu. ft. This is probably the largest single amount of gas ever sold on the Gulf Coast.

• Price Shock—The price at which the gas was sold is also believed to set a record. The proposed price is 22.4¢ per mcf. until Nov. 1, 1962, after which it would escalate by 2¢ per mcf. every four years, until it reaches 36.4¢ in 1986.

Local governments and distributors already have protested that the escalating feature "would impart harmful implications for the future when the nation is forced to rely heavily upon offshore gas," and producers have petitioned the Federal Power Commission for a rehearing.

FPC tentatively put its O.K. on the deal last month, and issued a temporary certificate to Tennessee Gas to build 107 miles of pipeline at a cost of over \$16-million to connect its system with the offshore reserves of the CATCO group. At the same time, the commission granted the producers temporary authority to make the proposed sale. However, FPC remanded for determination by a hearing examiner the rate to be allowed the producers when permanent certificates are granted. FPC, in issuing the temporary certificates, emphasized that "this crucial sale should not be permanently certificated unless the rate level has been shown to be in the public interest."

• Comparison—Industry sources contend that there is less foundation for this kind of opposition than appears at first glance. The over-all average price Tennessee Gas pays for its gas today from all sources—including some contracts that were made 10 years ago when gas could be had for less than 5¢ per mcf.—is 12.5¢ per mcf. With all the CATCO gas, Tennessee Gas' average price will still be under 13¢. (As the old contracts expire, their new terms

will come more in line with the new, higher rates.)

A spokesman for a company operating in the same area gives this rundown of the approximate new-contract rates in the Louisiana offshore waters: the southwest corner, 21¢ per mcf.; south central, 20¢; southeast, 22¢. The CATCO group is opposite the southwest corner.

• Rush for Reserves—One factor that is boosting the price of gas is the fact that new fields are getting harder to find, and those that are found are deeper and cost a lot more to develop. Another factor is the demand for gas as a fuel in more areas of the country.

To get a certification from FPC, a natural gas transmitter must be able to guarantee the area a 20-year supply. Obviously, the real plum for the pipelines is not cheap gas, but big reserves—and that explains why pipelines are willing to pay high for such reserves. It is for that reason that Texas Eastern Transmission Corp. last year was glad to run its lines into Mexico and pay about 5¢ per mcf. more than it was paying for gas in the Corpus Christi area, where its main line already existed.

Another example was Pacific Northwest Pipeline Corp.'s willingness to pay more than 25¢ per mcf. at the U.S. Canadian border in order to tie up a reserve from northwestern Canada. It was this supply of gas—more than any other single factor—that accomplished the huge deal whereby El Paso Natural Gas Co. bought out Pacific Northwest (BW-Jan.26'57,p76). El Paso got a big new market, but more important, it got the gas to serve it.

Tennessee Gas will pay Trans-Canada Pipe Lines, Ltd., 25.08¢ per mcf. for Canadian gas at the U.S.-Canadian border south of Winnipeg; if and when its plan to invade the Midwest materializes (BW-Feb.25'56,p70). But few companies would pay half that price to hook on to a nice little gas well anywhere along their main line.

• Substantial—CATCO's gas is ideally located for Tennessee Gas' system. The Tidelands is considered one of the biggest sources of future gas reserves. Industry sources estimate that proved natural gas reserves offshore from Louisiana and Texas total about 12-trillion cu. ft. In 1956, actual production offshore from Louisiana totaled 124-billion cu. ft., about half of which was casing-head gas produced with oil. According to Petroleum Week, a McGraw-Hill publication, Tennessee Gas already is pulling gas from the Bay Marchand and Delta fields.

Since Tennessee Gas plans to be taking 250-million cu. ft. daily by 1959, the deal stacks up as very substantial. Some good-sized interstate pipelines have total reserves or dedications to them totaling only 6-trillion cu. ft.



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In Business

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Centralized Control and User Tax Urged for Airways by Commission

A special Presidential commission this week came up with two major—and controversial—proposals for a new approach to the nation's increasing aviation problems. After 15 months of study, commission chairman Edward P. Curtis, an Eastman Kodak official, turned in a 51-page report, with these main suggestions:

- Creation of a Federal Aviation Agency, lumping regulatory authority and the management of the airways for civilian and military aviation. These functions are now widely diffused among various agencies.

- Adoption, as natural policy, of an "airway user charge" to ease the government's fiscal pain in developing a modern airways safety system. For a starter, the commission suggested earmarking for the airways system the present 2¢ a gal. tax on aviation gasoline and other industry excise taxes.

• • •

Allegheny-Backed Slate Wins One Seat at Mopac; It Sought Five

A tepid proxy fight at the Missouri Pacific RR seems to have reached a lukewarm conclusion.

When the count of stockholder votes is completed, it is believed that Robert R. Young's Allegheny Corp. will have won only one of the five seats it sought on the Mopac board—all that were being contested under the stagger system.

It is understood that 73-year-old Paul J. Neff, a principle target of Allegheny, will move up from president to a newly created chairmanship. Russell L. Dearthmont, vice-president and general counsel, is expected to take over the presidency.

The setback is said to sit badly with Young, who may wage a much fiercer proxy fight next year.

• • •

Fed Stresses Inflation Fears As Treasury Refunding Limp

Money market experts turned out to be right in their prediction that the Treasury's latest refunding operation would meet a cool reception (BW—May 11 '57, p43). Although the new securities offered the highest interest rates since 1933, the holders of more than 28% of the \$4.1-billion maturing securities preferred to take cash.

Tight money conditions were blamed. Market authorities said the results would have been even worse except for heavy purchases of the new securities by the Treasury itself. Treasury officials said the big payout was "in line with expectations considering that we faced the tightest market in years."

Meanwhile, the Treasury will have to raise more money

in the next few weeks. And officials hinted that, despite the Federal Reserve Board's tight money policy, they might offer a long-term bond to holders of the \$600-million F and G bonds maturing June 1.

That the Fed is putting renewed stress in credit restraint was confirmed last week by C. Canby Balderston, vice-chairman of the Board of Governors. Canby's statement that the "problem of inflation is a real one" echoed unofficial reports that the Fed was shifting from "passive" to restrictive policy (BW—Apr. 27 '57, p49).

• • •

Once-Burnt, British Distributor Starts Censoring U.S. Publications

Britain's largest newspaper distributor has set itself up in the censoring business—to get out from under violations by imported U.S. publications of the severe libel laws.

The distributor—W. H. Smith & Son, Ltd.—not only scans all U.S. publications, but demands that the publishers (1) maintain in London an editor to defend libel suits and (2) guarantee any court costs assessed against W. H. Smith in future cases.

The issue arose over an article in Newsweek on the trial of Dr. Adams, the Eastbourne physician who was recently acquitted on charges of murdering a patient. The article violated Britain's stringent laws on what can be printed about a trial.

Ultimately, W. H. Smith was fined \$140 for distributing the issue of Newsweek, and Rolls House, which imported it, was slapped for another \$140.

Right now, the U.S. publishers are trying to get W. H. Smith calmed down. Newsweek, for one, says it is ready to handle court costs, but has no intention of letting its London staff be tossed into jail.

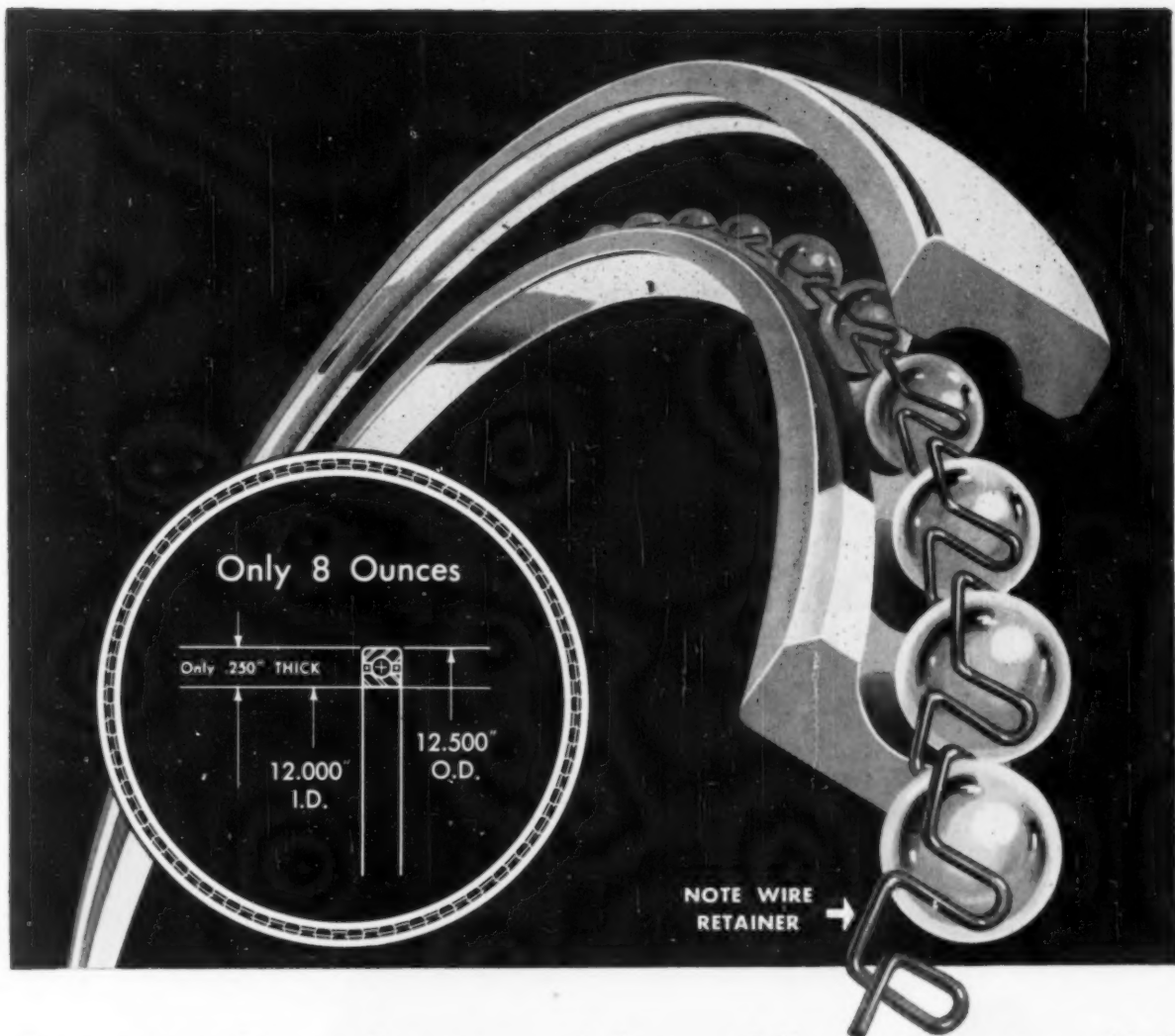
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Business Briefs

A Nashville businessman this week won the first round in his fight on Tennessee's anti-daylight saving law, when a General Sessions judge held that the statute was unconstitutional because it discriminated against business. Albert H. Phillips, a real estate and insurance man, was arrested last week for turning his clock ahead one hour (BW—May 11 '57, p54). The case will probably be appealed all the way to the state supreme court.

Gross national product rose in the first quarter to an annual rate of \$427.1-billion, says the Commerce Dept., confirming earlier estimates (BW—Apr. 13 '57, p39). The annual rate in fourth-quarter 1956 was \$424-billion. In the first quarter this year, personal consumption spending rose to an annual rate of \$275-billion, up \$4-billion; personal income reached an annual rate of \$336.5-billion, up \$3.3-billion.

Allegheny County, and Pittsburgh, hope to inoculate everybody between six months and 40 years against polio by this summer. The 126 wholly free clinics are aiming at 80,000 persons; 7,000 got their first shot on opening night this week.



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***Real-Slim* Roller Bearings** — Radial and taper roller types in cross sections from $\frac{9}{16}$ " and in bore diameters from 5" to 40".

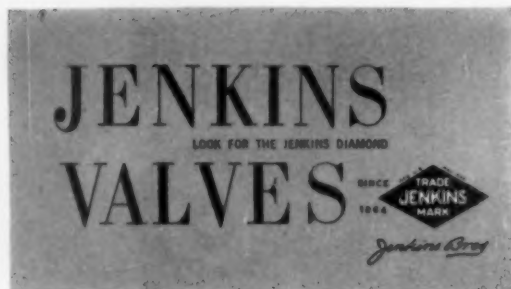


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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
MAY 18, 1957



Eisenhower's whole legislative program is in trouble—not just the budget.

This situation has been pretty much obscured by the attack on the big spending plans outlined by the President in January. When the mail to congressmen started pouring in, demanding that spending be cut so taxes can be reduced, Congress turned a critical eye on other Eisenhower proposals. Now, with the session's end less than 90 days away, it's pretty clear that most of the President's program will be left dangling—at least this year.

Congress will go ahead and cut the President's budget, despite the radio-TV explanations of why Eisenhower feels the spending is justified (page 39).

One reason is that Eisenhower's fight is too late. Back in January, the President seemed to agree at press conferences with the position of Treasury Secy. Humphrey that the budget could and should be cut. So, members of Congress, including many in the President's own party, went on record in favor of cuts. They were encouraged in this by the mail flood. Often, the writers were asking their congressmen to help Eisenhower save money.

Another reason is that the GOP doesn't like the big-spending label that the Democrats are pasting on it. Over the years, Republicans have identified themselves with economy. As a result, they find the President's big budget—a record for peacetime—hard to take. Businessmen are turning cold toward the President (page 40). So are millions of workers, who yearn for tax relief.

Note what's going on in the Senate (page 39). For the first time in years, the Senate Appropriations Committee and the Senate itself are going along with budget reductions voted by the House. The Senate usually puts back money that the House takes out.

But a word of caution on economy claims that are connected with prospects for a tax cut next year: In acting on the budget, Congress is doing two things—authorizing future commitments, money to be spent in later years, as well as providing funds for spending next year. Most of the cuts to date are in authorizations for the future. These cuts may well run to between \$3-billion and \$4-billion. But the actual reduction in the spending schedule for next year will hardly exceed \$1-billion.

You will see some GOP efforts to back the President. But present signs are that the victories will be small—they won't offset the defeats.

The State Dept. money bill is an example. The House sliced off \$47-million of the department's operating budget. You may well see the Republicans line up to restore this cut. It would make headlines and indicate to the world that Secy. Dulles is still strong in Washington.

But it will be different on foreign aid. Eisenhower has already given up about \$500-million of the \$4.4-billion of new money he asked in January. There will be a big Republican vote to make an even bigger cut when this issue reaches the House and Senate floors.

There's politics in Eisenhower's budget defense—politics aimed at both Republicans and Democrats.

Eisenhower isn't happy with his budget. White House sources insist

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
MAY 18, 1957

this is true. For support, they point to the January-February position of the President, when he gave the impression that if Congress could make cuts, he would be happy to accept them.

—•—

A quick rundown of legislative prospects indicates that only a few of Eisenhower's proposals have much, if any, chance at this session.

The biggest victory to date is the House and Senate's O.K. of the Middle East policy, which permits the use of force to maintain peace in the area.

School aid has only a slight chance. This is the top domestic proposal backed by the President for action this year. It's getting bogged down in the integration issue as well as in the economy push. Very few congressmen buy the President's idea of a four-year federal aid program. The feeling is that, once the program is started, it will run on and on, cost more and more.

Civil rights legislation is in doubt. The Southern maneuver to couple the "right to work" (without belonging to a union) with the right to vote will put many members of Congress on the spot. On top of this, a Senate filibuster is sure. Congress won't take the Washington heat to vote the issue. When mid-July rolls around, the adjournment push will be on.

Broadening of the minimum wage hasn't much push behind it. It's likely that opponents will stall this one until next year.

Regulation of union funds won't be voted now. Eisenhower backs action, and so does a majority of the House and Senate. But Congress will delay any legislation until the McClellan committee finishes work.

The farm program won't be rewritten, despite Agriculture Secy. Benson's complaint that his 'own flexible price support plan isn't working. Neither party has a good substitute to offer (BW—May 11 '57, p41).

The natural gas bill is about dead. Though the President favors some kind of legislation, the provisions that his advisers insist must be in the bill are opposed by most producers. Consumer opposition is coming from politically big areas—the North and Northeast.

Home-buying terms will be eased. Congress will put through legislation cutting down payments under the FHA mortgage insurance program and authorizing the government to buy housing paper to support the mortgage market. Whether or not this legislation acts as much of a stimulant for housing will depend, largely, on the over-all supply of credit. Right now, the prospect is that credit will stay tight for some months yet, even if the Democrats make a political issue out of it.

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On credit, some Washington sources think they see signs that more businessmen are becoming concerned about the Federal Reserve's tight money policy. The Fed's position is that credit should be held on the tight side so long as prices threaten to rise. But now there's rising worry that the Fed will press things too far.

Does the Fed actually want to turn prices down? There have been indications for some weeks that it does want to do this (BW—Apr. 27 '57, p49). At the recent meeting of the Commerce Dept.'s Business Advisory Council Fed Chmn. Martin talked about credit policy. Some of his audience got the impression that the board's aim is a reversal of the price trend.

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Now he knew all the people at Okonite
But with orders he'd seldom reward 'em,
"Because," he would state, "the cables are great
But who in the world can afford 'em?"

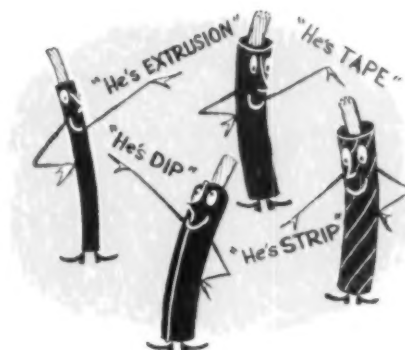
(Now that was a fault of the late Lucius K's—
That he had such a silly illusion;
For Okonite insulates cables *all* ways:
Strip, taping, dip and extrusion.

Only Okonite uses all methods, you see—
Our prices are *not* always highest;
And thus when you ask us what cable to use
Our recommendation's unbiased.)

So Lucius K. Watt went out and he bought
A cable he heard was a bargain
And this was too bad, for Lucius was had . . .
By some Madison Avenue jargon.

The thing was installed (with a minor defect)
In a most inaccessible place;
When Lucius K. Watt went out to inspect . . .
The cable blew up in his face!

We hate to relate this horrible fable
But here is the moral for all:
If you should desire a superior cable—
By extrusion or strip . . . by taping or dip
Just write us a letter, or call.



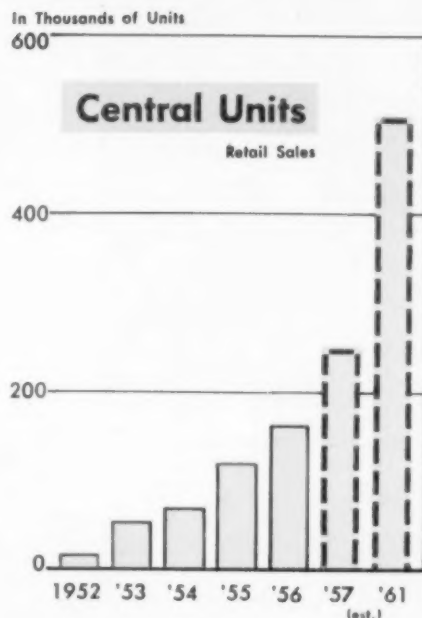
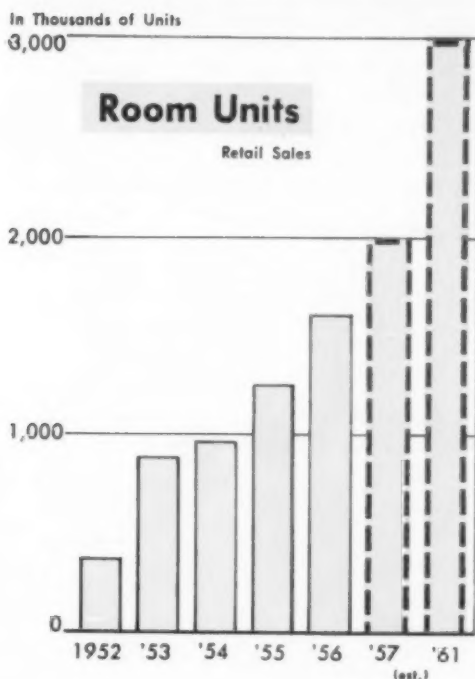
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Air Conditioning

Still Has Stars in its Eyes



Data: Air Conditioning & Refrigeration Institute;
BUSINESS WEEK Estimate.

Air Coolers: Off on a New Spurt?

Manufacturers of both room and central units are looking forward to a period of explosive growth in next five years.

To a great extent, their optimism is based on the greater versatility of their product and new marketing practices, which are taking away some of the curse of seasonality.

HOME AIR CONDITIONING is readying for a stretch drive.

This child prodigy of the postwar world has done pretty well—but it hasn't lived up to its advance notices. Retail sales figures, especially for room units, have been pretty much educated guesses until recently. Nevertheless, they indicate that neither room units nor central systems have repeated the terrific spurt of 1953, when sales of both types more than doubled (charts). The child prodigy developed fast into something like a problem child, and it is still working its way through this stage.

Even so, last year's sales showed good gains, and manufacturers of both room and central systems expect them to pick up steam this year—despite a slump in new housing. Projections for the next five years promise explosive growth.

• **Behind the Optimism**—Three factors account for most of the optimism:

- The industry is beginning to lick

the No. 1 problem for room units: their dependence on the weather and a short selling season.

- Technical improvements in both central and room units are resulting in quieter, smaller, better-looking, and more efficient products that are easier and less costly to install.

- The shakedowns on the manufacturing side in the past two years—again mainly in room units—promise greater stability in production and marketing.

- **This Year's Targets**—This year the industry has set its sights on these targets: for room units, about 2-million sales, against some 1.6-million last year. For central residential, about 250,000 units—a hefty jump from roughly 165,000 in 1956.

It's true that the homebuilding slump may gnaw these estimates down. "There's no doubt that it should hurt," says George S. Jones, director of the

Air Conditioning & Refrigeration Institute. And it's also true that room units started the new season with a sizable inventory, which latest estimates are upping to close to 500,000.

But industry leaders are by no means downcast. Even what looks like a whopping carryover is only "slightly higher than normal," one expert reports. And at least some feel that the building slowdown may help sell air conditioning. Builders will try hard to sell, and such efforts mean stressing "features," such as air conditioning. Central unit manufacturers point out that the cut-back in housing is mainly at the bottom of the price line—which leaves the lush-housing market still on tap. Finally, both central and room unit makers are stressing the fix-up market to offset the lag in new homes. Trane Co. is one of many who feel this way.

So far, there are some signs to give weight to the industry's optimism. Retail sales most places are still slow. But Paul Augenstein, sales manager of General Electric Co.'s room air conditioning division, reports sales to GE distributors are 30% ahead of last year's at this time, and distributor sales to dealers are 60% ahead.

- **Five Years From Now**—Looking ahead five years, the industry talks this way: In the past five years, it sold some



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5-million room units. "In the next five, we'll sell 16-million," says one company official confidently. Other estimates put annual sales at about 4-million by 1965.

On central residential units, Cloud Wampler, chairman of the board of Carrier Corp., figures that sales of close to 170,000 last year will be more than tripled in five years.

Dollar sales are tricky, especially in room units, where discount selling plays havoc with suggested retail prices. Industry experts think total home air conditioning sales last year came to about \$821-million—with room units, at around \$426-million, getting the lion's share. By 1962, experts are looking for something close to \$1.5-billion.

• **Central vs. Room Units**—Manufacturers are still divided on where the big home market lies. The central system camp still is convinced that central systems represent the greenest pasture in the long run. But there's a new spirit of optimism among room unit makers. "Don't sell the room unit short," they say. Even for new housing, they point out, the smaller units have greater versatility. Without expensive controls, you can get your cooling where you want it. New apartment house owners, too, see some merits in individual built-in units rather than a central system that must be operating full-time.

• **A Little of Both**—Actually, the two schools, who so violently opposed each other a few years ago, are recognizing the fact that there's something to be said for both sides. Salvatore Giordano, president of Fedders-Quigan Corp., at first put all his eggs in the room unit basket. Now Fedders is in the central field, with units that use warm air ducts and other units for wet heat systems. Philco is another room unit merchant that has just gone into central systems.

On the other side, Carrier, which has from the start been a major proponent of central systems, is changing its tune some. Wampler still is convinced that central units are the major market. But he says the time is ripe for Carrier to increase its share of the room market, too.

• **Added Attractions**—Both camps are working hard to gain some of the marketing advantages of the other side. The existing-house market has been the stronghold of room units, thanks to the high cost of installing systems in old wet-heat houses. Now GE's central division is bringing out relatively low-cost cooling systems that require only limited ductwork. Cost of the unit itself is around \$500. Whirlpool-Seeger, Chrysler Airtemp, Fedders, and Worthington are among the manufacturers with new systems for easier installation.

By the same token, the room unit manufacturers are seeking to give their products some of the extra value of

year-round heating and cooling systems. The high-cost heat pump for central home systems is still relatively small potatoes; sales last year were estimated at 7,000 units for homes. But room manufacturers are pushing the heat pump principle hard. This type extracts heat from the air inside the house when cooling is wanted; in winter, the pump's cycle is reversed and heat is taken from the outside air and pumped indoors. York pioneered the heat pump type several years ago. Fedders has one, costing maybe \$20 to \$30 more than a regular unit, that will take the chill off the air in spring and fall. GE puts great store on a heat pump room unit, not available till next year, that will do a year-round job.

In its present state, though, the heat pump has a limited market, and such leaders as Carrier, Chrysler Airtemp, and others feel it has been overplayed, at least in its present state of development. The problem has been that in warm areas, you have to buy more heating capacity than you need to get the proper cooling capacity. And in cold climates you have to buy more cooling capacity than you need in order to get the necessary warmth. But GE points out that, with more big names getting into the heat pump area, its development ought to come faster.

• **Longer Working Span**—Even in its somewhat limited state, the heat pump does offer this plus to room conditioners: It lengthens their working span, takes away some of the curse of seasonality.

It may well be years before the room unit loses its dependence on the thermometer, which has plagued it from the start. But there are signs of a change. In 1952, only 6% of the industry's annual sales occurred in the first three and last three months of the year. Last year, this figure was up to 18%.

• **Cooling Plus**—Slowly, the public is beginning to buy more than cooling. It is buying cleanliness, health (you can deduct the cost of a unit from your income for tax purposes if you have a doctor's prescription)—and this segment of the market buys even when the thermometer registers less than 90.

The industry hopes that its brand-new effort to use Btu's (British Thermal Units) as the basis for selling performance will help sell off-season. Till now, manufacturers and dealers have talked about horsepower, tons, ice-cube evaporation equivalent, and what not, with the result that the consumer has little idea what he is buying. "Get him used to Btu's," one manufacturer thinks, "and he'll start planning on a certain unit." Planning, the industry hopes, means buying sometime before the heat wave breaks.

By now, too, most room unit manufacturers offer incentives to their dis-

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1. Failure to recognize the full impact of inflation on property values—particularly in the case of buildings, machinery and equipment.
2. The tendency to base insurable values on property accounting records not designed for this purpose. Seldom are all property additions and improvements capitalized, and the accounting records reflect original costs which must be converted to present costs of reproduction.
3. The use of depreciation for accounting purposes to measure depreciation sustained. Book depreciation is designed to recover the costs of the assets over their useful lives in some systematic manner. Amortization and special write-offs further distort the recorded figures. It is not unusual to find many useful assets fully depreciated on the books and an over-all depreciation of 50% or more indicated for the entire property.

Insurance companies and adjusters take a realistic view of accrued depreciation in measuring "actual cash value" referred to in the standard insurance policy. They maintain that any specific building or machine which is serving its intended purpose is usually not depreciated beyond 40% or 50%, and the over-all depreciation on a well-maintained and efficiently operating plant would be far less than that. For insurance purposes, age times an accounting rate alone is not the measure of depreciation;

full consideration must be given to the maintenance and repair policies, accrued obsolescence, and the operating condition of the property units.

When we consider these deficiencies in the property accounts as a basis for estimating insurable values and the great inflation in the costs of buildings and equipment during the past 15 years, it is not surprising that a current detailed appraisal generally reveals the need for more insurance. It points the way for better protection for the property owner at a proper cost and provides the means for assuring prompt and satisfactory loss adjustments.

★ ★ ★

Continuous American Appraisal Service® gives management a "moving picture" of fixed assets, reflecting physical changes as well as fluctuations in value. It prevents under-insurance by providing current, provable facts. It eliminates errors in property accounting. This is one of the services of The American Appraisal Company, leader since 1896 in property valuation for purposes of insurance, accounting, property control, taxes and corporate financing.

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tributors to buy early—and these incentives are passed on to the consumer.

• **Shakedown**—The shakedown in the room unit branch of the business has helped build up sounder merchandising practices. Three years ago there were some 50 manufacturers turning out about 100 major brands plus countless minor labels. Today the field has dwindled to about 25 manufacturers, perhaps 50 brands.

Many who have fallen by the wayside are unheard-of names. But even such considerable concerns as Crosley, Magic Chef, and International Harvester found the going too rough. And some big refrigeration specialists joined up with other concerns: York became a division of Borg-Warner, Mitchell Mfg. Co. teamed up with Cory Corp. This means a tighter, stronger list of giants in the room unit field.

In the central system business the trend is still toward growth—more companies are coming into the field. About seven companies entered the central system business this year, bringing the total to about 78. As the official of one company puts it, every furnace and boiler maker is in the air conditioning business today.

• **Size and Style**—In the fixup market, some central system manufacturers are concentrating on packages that will cut down costly duct installations for warm air heat. Others are developing cooling systems to hook into hot water or steam pipe systems. A few companies are doing both—but everyone has his eye on minimizing installation costs.

Room unit manufacturers, meanwhile, are concentrating on more compact, better-looking units. Miniatures, such as Philco and Fedders are bringing out, seem to be the trend. Most companies in the past year or so have been advertising sleeker, more svelte models.

The technical developments are nowhere near an end. Whirlpool-Seeger, for example, has developed an electronic unit with no moving parts—but it's still a long way from the production stage.

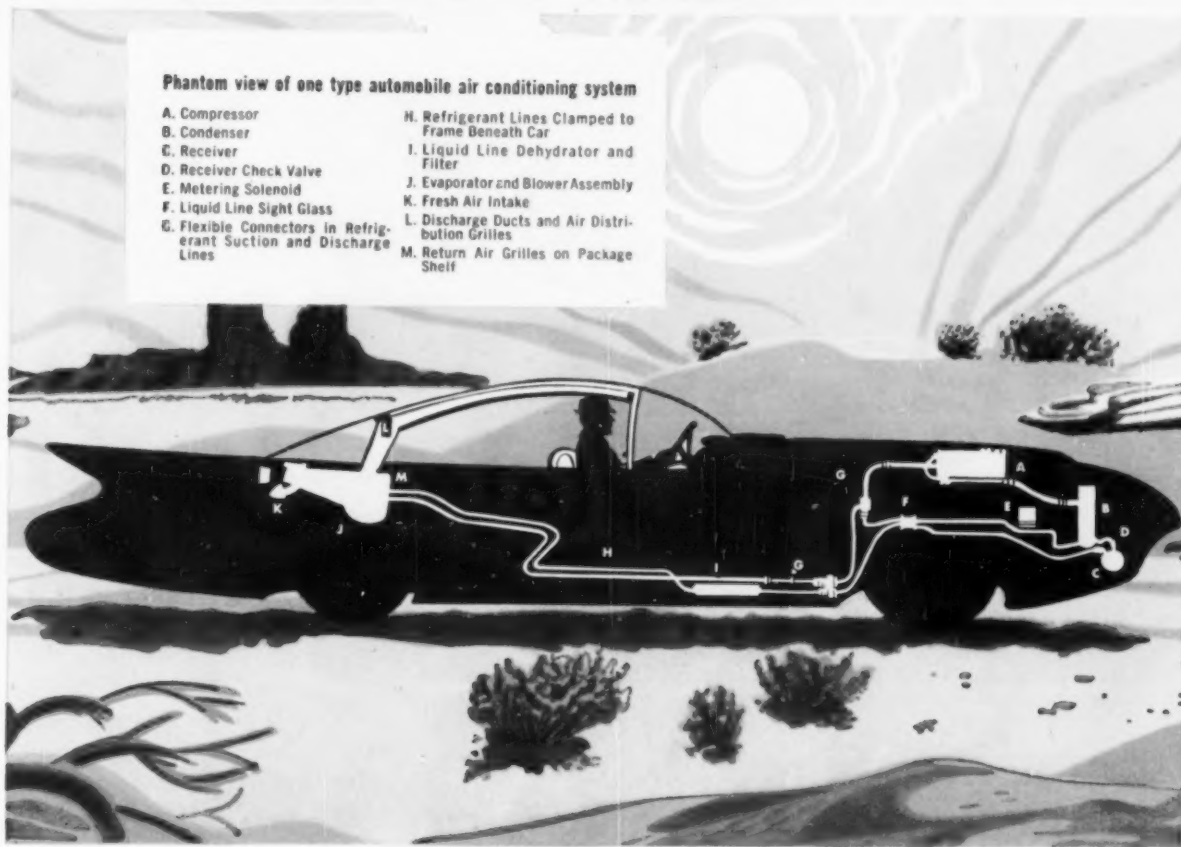
• **Price**—Gradually the price of both central and room units has come down. GE estimates that the cost of central systems to the consumer dropped 50% to 60% between 1952 and 1956. One industry leader estimates that in the past three years the average room cooler has dropped about \$50; this year's models run around \$250-\$275. Manufacturers insist that prices can't go lower, that, if anything, they must go up.

On this point, though, it's likely that the weatherman will have the last word. If summer is kind to air conditioning, the room units may well stick at those prices. But if summer blows cool, all past experience indicates prices will drop with the temperature. **END**

Naugatuck PARACRILS

Phantom view of one type automobile air conditioning system

- | | |
|---|---|
| A. Compressor | H. Refrigerant Lines Clamped to Frame Beneath Car |
| B. Condenser | I. Liquid Line Dehydrator and Filter |
| C. Receiver | J. Evaporator and Blower Assembly |
| D. Receiver Check Valve | K. Fresh Air Intake |
| E. Metering Solenoid | L. Discharge Ducts and Air Distribution Grilles |
| F. Liquid Line Sight Glass | M. Return Air Grilles on Package Shelf |
| G. Flexible Connectors in Refrigerant Suction and Discharge Lines | |



Cool!

Air conditioning an automobile is not a new idea... just one that presented a variety of material specification problems. One of the most important of these problems was the need for a rubber with low enough permeability to be used as a vehicle for commercial refrigerants. This was solved with a Paracril® rubber.

Paracrils are Naugatuck's butadiene acrylonitrile rubbers. Rubbers capable of carrying refrigerants while possessing outstanding resistance to oils, fuels, aromatic hydrocarbons and many hydraulic fluids. In addition Paracrils provide:

- superior aging resistance, even at elevated temperatures,
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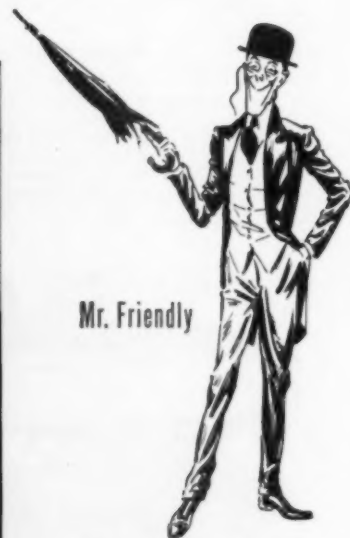
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John Q. Adams, Manager of Communications and Printing Department is shown at XeroX Camera No. 4 giving instructions to operator



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Xerography is used at American Mutual in the preparation of thousands of offset paper masters a year from which multiple copies are then run off on an offset duplicator. American Mutual's goodwill depends largely on the manner and extent it serves its policy holders. Consequently, the effectiveness of its "Mr. Friendly" advertising is enhanced because clients and branch-office personnel are adequately and properly informed at all times.

XeroX copying equipment forms the lifeline of this flow of information. Forms reproduced by xerography include office and policyholder forms, copies of correspondence, news releases, reports of all kinds, training and procedure manuals, instructions, and miscellaneous memos.

American Mutual uses xerography

for many other purposes. It has led to a dramatic cost improvement in duplicating operations and an actual documented saving of 66%. The improved speed of communications is even more gratifying. Besides, things are now being done by xerography that before were deemed impractical.

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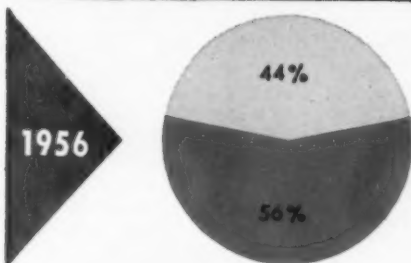
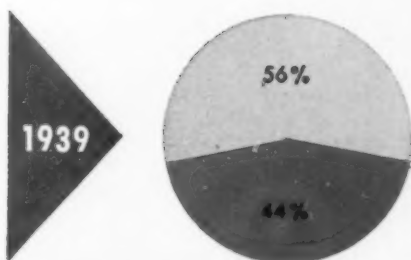
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In postwar era,
credit sales passed
cash sales



Data: Federal Reserve Board.

A big part of this
is still
30-day charge accounts

But this form of credit has
leveled out at 1949 ratio
(as % of total sales)



Time-payment plans
are the
fast gainers now

(as % of total sales)



©BUSINESS WEEK

Department Stores Play Banker

To make it easier for their customers to buy, U.S. retailers are more avid than ever in their promotion of credit. The latest vogue is for the revolving credit plan, already available in most U.S. department stores and gaining ground all the time.

IT'S INCREASINGLY clear, as the figures above indicate, that the nation's department stores are rapidly becoming bankers for their customers.

Today, more than ever before, retailers are pushing credit as a means of encouraging sales. In the past, of course, major retailers have always used credit as one of the inducements to bring in customers, especially those able to handle the long-established 30-day charge account. That's still a major part of department store credit; it was used in about half the credit sales last year.

But in the last few years, time payment systems—as distinguished from 30-day charge accounts and other forms of selling that aren't over-the-counter for cash—have expanded so that today they are the fastest growing kind of retail credit.

• **Two Ways to Pay**—For U.S. department stores, this deferred-payment credit breaks down into two distinct types:

Installment credit. This is the tradi-

tional conditional sales contract under which the store (or, perhaps, a bank) keeps title to the specific merchandise until the bill is paid. Ordinarily, this form of credit applies to major single purchases, such as an appliance.

Revolving credit. This relatively new vehicle is aimed primarily at moving softgoods. It allows time payments, based on a customer's monthly unpaid balance, of anywhere from 4 to 24 months.

I. Wave of the Future

Revolving credit is growing fast—both in use and scope. As a result, retailers are excited about its possibilities as a merchandising tool. One merchant, Samuel H. Shaffer, controller of the May Co., Los Angeles, puts it this way:

"Revolving credit is the wave of the future. The 30-day account will probably be available for the customers who want it, but the trend is toward the revolving credit type of account."

Such enthusiasm isn't universal—

Montgomery Ward, for one, hasn't yet adopted such a plan, although it is studying the idea—but most large department stores and chains offer some form of revolving credit. Federated Dept. Stores estimates that 9 out of 10 large retailers now let customers pay their monthly bills this way, against only half that number six years ago.

• **Future Mainstay**—If present trends are any indication, there is little question that this type of credit will become the retailers' major weapon to get more of the consumer dollar, and that it will cover almost any kind of purchase. In fact, it is likely that revolving credit will become as much a part of the consumer economy as ordinary, one-purchase installment credit.

According to R. M. Grinager, credit manager for J. L. Hudson Co., big Detroit department store: "The eventual objective seems to be, if possible, one flexible account for all but exceptional hardgoods purchases."

This trend toward making revolving credit the mainstay of store credit policy was pointed up in the last few weeks by R. H. Macy & Co. It is now promoting what it calls its new CT Plan, with a monthly balance limit up to \$330. Under the CT Plan, Macy's tells its customers:

"Nothing is too big or too little,

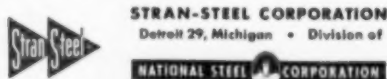


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Now rugged Stran-Steel buildings are clad with a look of luxury. With new Stran-Satin metal wall you get an attractive rib design and a soft pleasing luster. A wall that is strong and durable, assembled with panels that are longer, wider and easier to erect. In combination with other materials—brick, stone, wood or glass—Stran-Satin metal wall gives you limitless variation of exterior decor.

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Up to \$25,000 is available to finance these buildings through the Stran-Steel Purchase Plan. As little as 25% initial investment, up to 5 years to pay.



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whether it's a package of pins or a piano. You can buy furniture or furs or needles and thread . . ."

II. The Particulars

Actually, there are numerous variations of revolving credit—and more are being added as stores get greater experience with their systems.

Basically, the revolving credit idea emerged out of the old 30-day charge system. It was designed to provide regular credit for income groups that could afford, in a store's opinion, monthly payments of, say, \$10. Credit departments set up firm limits on the amount of credit a customer could have outstanding at any one time. This amount—say \$100—would then be paid off in 10 monthly installments.

But, as the balance declined, the customer had the right to bring the balance back again to the \$100 level—and still only pay the \$10 a month.

This was a tight rein to apply to customers. Some stores made special allowances for peak season buying—such as at Easter or Christmas—and let customers extend their credit beyond the fixed limit, as long as they made bigger monthly payments for a few months until the normal credit limit was regained.

• **Flexibility**—Out of this came the idea for what credit men now call flexible credit plans. One reason for them was the discovery that customers, instead of asking for higher limits as their credit was established, shifted buying to another store to boost their available credit.

Today, flexible plans are coming into general use. The "ideal" setup was outlined last month at the National Retail Dry Goods Assn. credit meeting in Cincinnati by A. S. Roberts, credit sales manager of Kresge-Newark, Newark, N. J.:

First, the customer would have the option of paying his monthly bill within 30 days—for which there would be no service charge. But the plan would also provide a schedule of payments for amounts carried beyond 30 days. For each range of unpaid balances—\$50 to \$100, \$100 to \$150, and so on—there would be a specific monthly payment of \$10, \$15, or \$20 due.

• **Variations**—No plan exactly matches this ideal. But most of the changes in the last couple of years have been made to incorporate flexible features.

At Federated Dept. Stores, a number of variations on what is called the chart plan are in use. Essentially, though, the customer gets a schedule of payments for varying ranges of monthly balances. As long as he meets the monthly payment requirements, established by a chart on the bill he receives, his credit is maintained.

Terms vary from store to store—all the way from 12 months down to six.

J. L. Hudson probably comes as close as any to the ideal. For the past year, it has been offering its regular 30-day charge customers (who make up 63% of total sales) the option to extend their payments by remitting one-fourth of the monthly unpaid balance. This gives customers who need extra time up to six or seven months to pay. If they pay within 30 days, there is no service charge—after that, it's 1% of the unpaid balance.

III. Problems

All this raises questions on which, as yet, there is no firm agreement.

Most important—and controversial—is this one: How much should a store charge a customer for extending revolving credit?

Earlier this year, New York State enacted into law specific limits on retailers' charges for this kind of credit (BW—Mar. 23 '57, p. 70). It put a ceiling of 1½% per month on unpaid balances up to \$500, 1% on balances over that amount. The minimum charge per monthly account was set at \$1.

According to most retailers, that pattern applies almost countrywide—with exceptions, of course, such as J. L. Hudson. Formerly, the monthly service charge (retailers insist on calling it that, instead of interest or carrying charge) ran around 1%.

A couple of years ago, though, Sears installed revolving credit for the first time and established the 1½% figure, which, it claimed, cost studies indicated was necessary.

• **Expensive Business**—Not everybody agrees that 1½% is fair—since, looked at one way, it amounts to 18% a year. But, say retailers, when accounts average—in the case of Federated, for instance—less than \$98, the 1½% probably doesn't pay all the costs of carrying the credit. Those costs include:

- Extra working capital (one study puts the necessary increase at 40% of annual revolving credit sales).
- Increased bad debt losses—as high as 0.8%, against less than 0.5% for regular charge accounts.
- Additional accounting.

But credit men got a warning at the NRDGA meeting last month. Kresge-Newark's credit manager cautioned that talk of 1½% for service charges may push customers into borrowing from banks—some of which offer a form of revolving credit at 2% a month—and buying at discount houses.

• **How Long?**—Tied into financing charges is the question of how long a term revolving credit should provide. Not long ago some stores were extending payments as a means to boost sales. Now, they say, they are trying to pull



Runaways had to be Stopped!

A remotely-operated ingot "buggy" in a Pittsburgh steel mill frequently went "out of control" and ran wild. On one of its sprints it ran off the end of the rails, through the bumper block and 75 feet across the yard. On another dash, it damaged tilting and approach tables.

Several possible solutions were tried. Railroad-type air brakes, for example. But the car wasn't adaptable to compressor and air-lines, and maintenance was excessive. An emergency battery to feed the motor's didn't do the job.

At the suggestion of Field Engineer PAUL LACKE, EC&M Dynamic Braking Control* was installed. It provides a "fail-safe" circuit which stops the car within 1½ lengths. Stopping is independent of external power since motors on the buggy supply their own power for quick stops. *Costly runaways have been completely eliminated by this EC&M control system.*

*EC&M Steel Mill Control is manufactured by The Electric Controller & Mfg. Co., a division of the Square D Company

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Paul Lacke

NOW...EC&M PRODUCTS ARE A PART OF THE SQUARE D LINE

NEWS OF THE MONTH FROM SQUARE D

PAPERWORK PROGRESS... This month Square D will receive one of the first three RAMAC data processing machines to be delivered to U. S. Industry. Because it can store millions of facts and provide current data in a matter of seconds, RAMAC speeds processing tremendously—will reduce cost of inventory control, cost accounting, payroll and other business procedures.

NEW SWITCH STANDARDS... Square D has introduced a complete new line of safety switches to meet revised National Electrical Manufacturers Association (NEMA) standards for heavy, normal, and light duty applications. Square D introduced the first safety switch in 1906.

COMMENCEMENT EXERCISES... Another class has been graduated from Square D's field engineer training program, having completed postgraduate work in the company's major product headquarters in Milwaukee, Detroit, and Cleveland. These men, handpicked from leading engineering schools, will be assigned to field offices, supplementing a staff of 235 field engineers in 80 principal U. S. cities.

CONVENTION TIME... Thousands of electrical distributors will meet in Washington, D.C., for the 49th Annual Convention of the National Association of Electrical Distributors, May 24-26. Square D will have an active interest because of its "partnership" with distributors who help distribute Square D products in 800 areas throughout the country.

GEORGIA PEACH... Square D's new plant in Atlanta began full production this month. Serving the eight southeastern states, this 33,000 sq. ft. facility assembles special distribution and control equipment... also serves as a redistribution point for standard equipment produced at Square D's Detroit and Milwaukee plants.



SQUARE D COMPANY



Another "Golden Egger" Coming Up

Another good season for you to sell Ohio farmers. But that's true all the time. Broad diversification holds income at a big, steady level right around the calendar. Each year finds Ohio among the nation's richest farm states.

And using **THE OHIO FARMER** is still the best way to reach this active farm market. Here's a paper read thoroughly by 4 out of 5 Ohio farm families. It's home-edited, devoted to their interests exclusively.

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back. Though Macy's will give as much as two years to pay under special arrangements, the tendency today is to limit revolving credit to 6 to 10 months.

According to A. L. Trotta, NRDGA's credit management department chief, revolving terms are stabilizing at about eight months.

This may partly be the result of experience that shows increased bad debt losses under these plans. The generally tighter money supply may also have something to do with it.

• **Money Trouble**—Financing, especially for smaller stores, is another headache. Big companies—such as Federated and Sears—find it fairly easy to sell their accounts receivable to major banks. They pay only slightly more than the prime commercial rate, since they take over the chore of keeping the accounts straight, collecting, and dunning—and will buy the bad paper back from the banks.

But the smaller stores find it harder to get such treatment and still maintain control over customer accounts.

IV. It Pays Off

Regardless of the problems, there isn't much doubt in the minds of retailers that revolving credit is one way to boost sales. Store after store reports direct sales increases attributable to the installation of some form of revolving credit.

Federated's Fred Lazarus, Jr., a prime believer in the idea, calls the extension of credit "an instrument of consumption." It's his idea that the younger middle-income groups are excellent risks in the postwar economy, and that department stores must tailor credit policies to fit their needs.

• **Sears Joins Parade**—He thinks it is significant that Sears, Roebuck—for years a cash store and then for many more years a store providing only installment credit—has now adopted revolving credit. Since initial experiments in 1954 in Greensboro and Charlotte, N. C., Sears has extended revolving credit to almost half (340) of its stores. Today 6% of Sears' total sales volume is in revolving credit.

Besides that, study after study has shown that consumers are willing to pay for the convenience of credit and aren't too aware of what it costs them.

Experience of stores shifting charge accounts into revolving credit plans supports this idea. That adds up to one other advantage of such credit. It is one way to get rid of the headache of delinquent charge accounts. As J. L. Hudson's credit manager puts it:

"It will give us the important advantage of placing more and more accounts receivable investments on an income paying basis when more than 30 days are taken. **END**"



When **CONTROL** is your problem . . .

Reliable control is vital in aircraft operation on the ground as well as in space. To steer the nose wheel on the B-58 Hustler, the new U. S. Air Force Supersonic Bomber, Manning, Maxwell & Moore created a highly sensitive control system for Convair. This system typifies the compact, weight-saving design of our airborne components such as turbojet engine temperature control amplifiers and afterburner control systems . . . pressure gauges, fuel control valves and electronic amplifiers . . . pressure switches for rockets, jet engines, airframes.

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lift, Manning, Maxwell & Moore has the know-how and products to serve you. We produce industrial valves to control flow . . . regulators to control temperature . . . safety and relief valves to protect personnel and plants . . . gauges and thermometers to measure pressure and temperature. We build cranes and hoists in so many types and capacities, countless lifting problems are solved economically for industry every day.

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New Dog Food Bids For the Canine Trade

Ralston Purina, an old hand with animal and poultry feeds, enters its Purina Dog Chow in the grocery store competition.

THE HEARTY APPETITES of the family pet, kennel club members (left), and inmates of the laboratory add up to a flourishing business for which a lot of companies are competing hotly.

The latest attempt to woo more of the patronage of the canine set began last month when Ralston Purina Co. launched a new packaged dry food, Purina Dog Chow, with a \$3-million national advertising campaign. Ralston has designs on a bigger slice of the \$525-million dog food market.

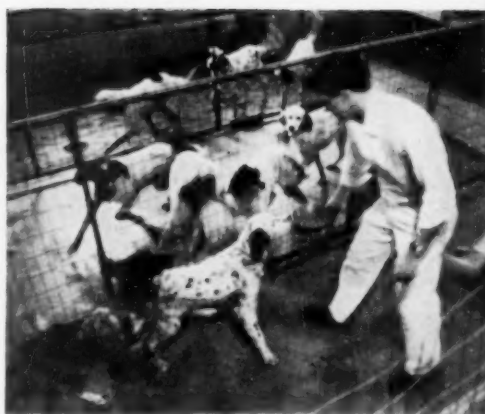
• **For Grocery Shelves**—Ralston Purina, already a leading producer of animal and poultry feeds, with \$397-million in sales last year, has been selling dog foods since 1926. But its sales have been chiefly through feed store outlets. Now, after six years of product development and market testing, the company is out to break into the important grocery store segment of the business. These outlets account for about 60% of the bulk and around 80% of the dollar volume of all dry dog food sold, according to Geoffrey Baker, vice-president in charge of the Ralston Div.

• **The Field**—Ralston's move will bring the company up against a lot of lively competition, particularly from other big companies that have entered the field in recent years. Trade sources agree that

Gaines, a product of the Gaines Div. of General Foods Corp., is the leading national brand. Next comes Friskies, made by Albers Bros. Milling Co., a subsidiary of Carnation Co. A cluster of other brands follows: Gro-Pup (Kellogg Co.); Ken-L-Meal (Ken-L-Products Div. of Quaker Oats Co.); Austin's (Sunshine Biscuits, Inc.); Kasco (Corn Products Refining Co.); Nutrena (Nutrena Mills, Inc., an affiliate of Cargill, Inc.); Walter Kendall and Hunt Club (Standard Brands, Inc.); Milk Bone (National Biscuit Co.); and Surechamp (General Mills, Inc.).

These brands are all dry dog foods. The list doesn't include manufacturers of the other basic type of dog food, the canned variety, though some of the companies mentioned, like Gaines, also make a canned food. Last year, the canned type dog food accounted for about 60% of the tonnage sold.

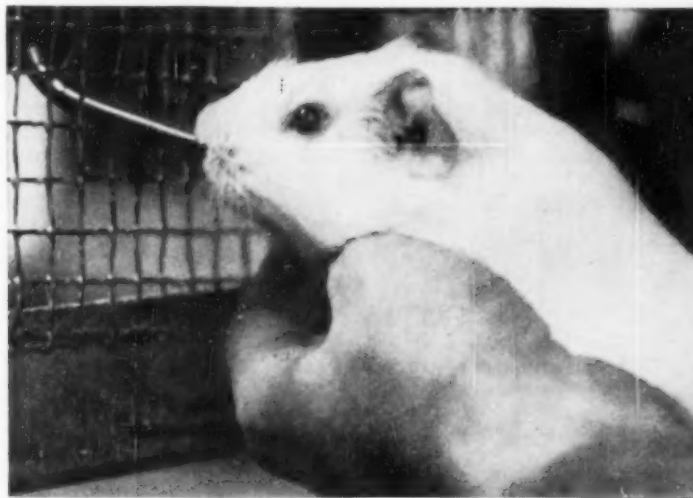
• **Growing**—A brief look at the size of the dog food market explains the interest. Ten years ago, according to Ralston figures, about 17-million dogs consumed around \$08.5-million lb. of commercial dog food, both canned and dry. The U.S. dog population last year, says the Gaines Dog Research Center, passed the 25-million mark, and wolfed down slightly more than 2.5-billion lb.



PURE BREDS and mutts show the same stripe when it comes to appetite. Last year they devoured 2.5-billion lb. of dog food.



MONKEYS used for research seem to prefer the sophistication of prepared dinners to the jungle's delicacies in the raw.



GUINEA PIG, which often bears the brunt of scientific experimenting, siphons off his lunch of canned formula.

MEHITABEL may soon be persuaded to abandon her garbage can fare in favor of cat foods.

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MOSINEE created the sulphate paper needed ... maintains uniformity of all desired characteristics within each run and from order to order.

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PAPER MILLS CO.
MOSINEE, WIS.



MOSINEE PAPER MILLS CO., Dept. BW-5, Mosinee, Wisconsin

Please furnish details on how you can create special papers to meet our needs.

NAME _____ TITLE _____

FIRM _____

CITY _____ ZONE _____ STATE _____

ADDRESS _____

PRODUCT _____

"... the rise in family income lets pet owners use the easily prepared commercial food rather than scraps ..."

STORY starts on p. 70

of dog food—for which their owners footed a \$325-million bill.

Further, dog food manufacturers, including Ralston, believe they have a growing market. In addition to the past growth records, they point happily to these factors:

- The trend toward larger families should result in an increasing dog population, since research by Market Research Corp. of America shows that larger families—especially when they include children—are more apt to own dogs.

- The population shift into the suburbs stimulates dog ownership, since, as might be expected—and as MRCA research confirms—people in less-densely populated areas, living in single-family dwellings, are more likely to own one or more dogs.

- The rise in the family income permits pet owners to use the easily prepared commercial food, rather than feed their dogs on scraps.

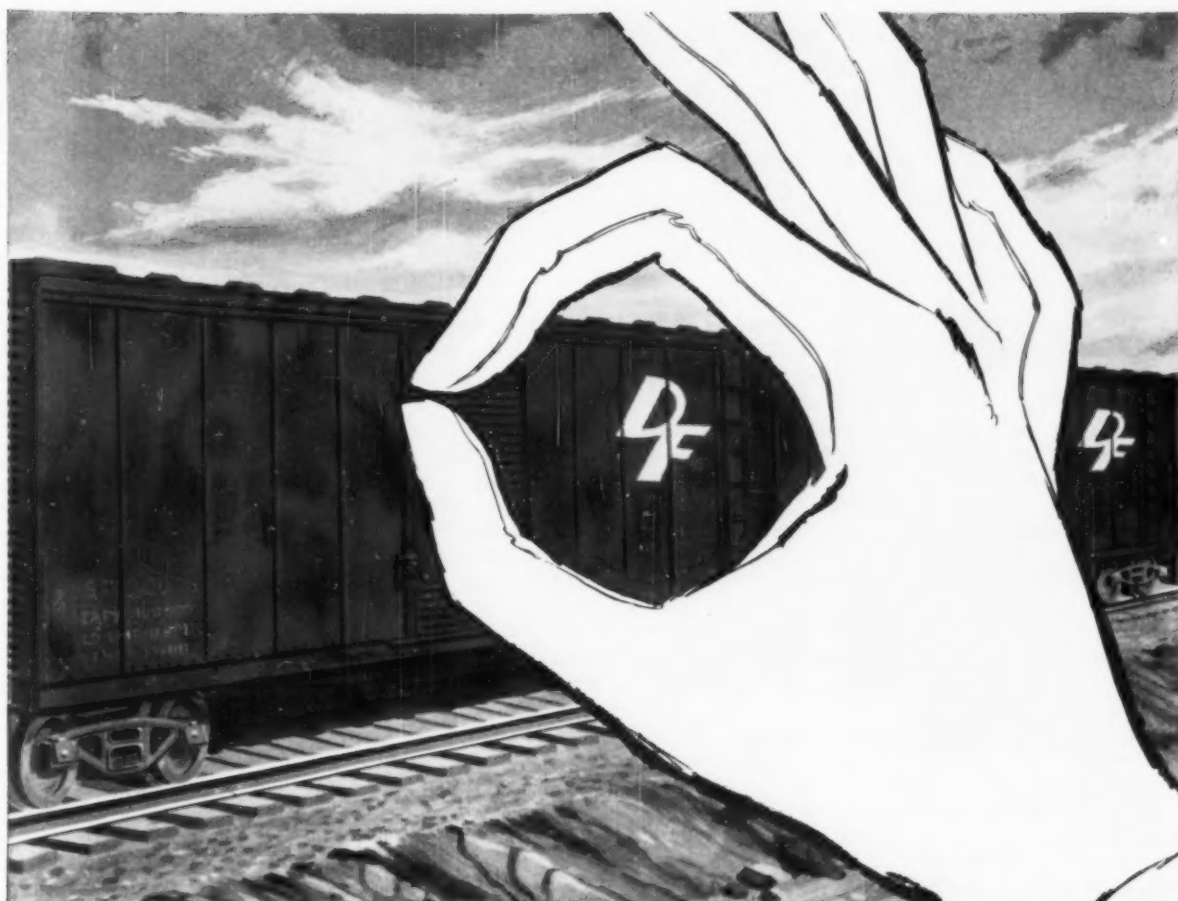
- For the Epicure—For the industry, these facts add up to a steadily growing market for dog food products. And they explain Ralston's expansion move.

In 1951, Ralston became dissatisfied with its predominantly feed store business in dog food. It was selling three brands of food, chiefly to the farm and kennel market. But sales were lagging behind the rest of the industry. The company decided to go after the household pet market catered to largely by grocery stores.

Before it could take this step, though, one problem had to be solved. The company felt its dog foods weren't tasty enough for the pampered family pooch. So it set to work to make a new product. After two years, it came up with its present light, more tasty food. (Following what is apparently a time-honored industry gimmick, Ralston salesmen from time to time eat a bowl of the new dog food to demonstrate how good it is.)

Then came a period of testing. Ralston made use of the facilities of its 723-acre Purina Research Farm near St. Louis where animal and poultry feed are developed (BW-Mar.13'54,p48). The food was tested for taste and nutrition. Ralston distributed samples of the new food to kennels, private owners. The dogs loved it.

- Market Tests—Having won Fido's O.K., Ralston decided to conduct market tests successively in five areas; Little Rock, Rochester (N. Y.), Columbus,



EVANS TM DF CARS...

popular with shippers . . . profitable for railroads

DF cars are popular with shippers because they give freight the "kid glove treatment," positive protection that pampers freight and eliminates both damage and dunnage. DF cars are profitable to railroads because shippers keep them loaded coming and going . . . load them heavier, use them oftener . . . and this shipper-preference can increase a DF car's revenue as much as 300% over ordinary box cars.

47 major railroads now own cars equipped with DF. For full details about DF equipment, write Evans Products Company, Dept. B-5, Plymouth, Michigan.

The "Kid Glove Treatment"

**THAT LOCKS IN LADING . . .
ELIMINATES DAMAGE AND DUNNAGE**



*DF is a trademark of the Evans Products Company . . .
only Evans makes the DF loader.



EVANS PRODUCTS COMPANY also produces: truck and bus heaters;
bicycles and velocipedes; Evaneer fir plywood; fir lumber; Evanite battery separators and Evanite hardboard

Rockwell Report

by W. F. ROCKWELL, JR.

President

Rockwell Manufacturing Company



SOME TIME AGO we mentioned here an advertisement, addressed to engineers, which emphasized in its headline that we did not offer them swimming pools, cottages by the sea or sudden

wealth—but that we did offer solid opportunity.

Since then many people have commented, mostly favorably, about our “unorthodox” ad. Actually it is not unorthodox at all, but rather an honest reflection of a basic policy.

We do not believe the fantastic—often ridiculous—inducements being offered engineers are really healthy for the engineers or anyone else. We offer good working conditions, but nothing approaching the lushness pictured so widely. Facilities in our laboratories are completely adequate, but our people are not encouraged in the uninhibited buying of batches of “fancy dan” equipment, for instance, without a lot of careful soul searching.

Our products are basic to the world's economy and have an expanding future—but they're not as glamorous as weapons systems, anti-gravity devices, and space satellites.

With all these apparent “disadvantages,” we have been able to build, and expand, a top-notch research and development organization. The reasons for that are, we believe, basic ones.

First, we use engineers as *engineers* on important projects. We don't stockpile them, wasting their abilities on paper shuffling or other boondoggle assignments. That means a lot in professional growth to engineers who are serious about their profession.

And second, we leave our research and development people alone as much as possible. That does not mean that they run wild and starry-eyed. They have practical objectives and they have budgets. But we honestly try to give them maximum freedom to be creative in their own way.

Fortunately there are many engineers who prefer solid opportunity to frothy window dressing. And we've found they are the *best* engineers for us.

* * *

Along with businessmen and engineers, a student at Massachusetts Institute of Technology wrote us about our company's “unorthodox” approach to engineers. He said, in part: “I agree with your attitude. Some of my friends and I have been offered lucrative summer jobs including little work and many transfers from department to department to ‘show us the company’. This causes some jokes among students comparing soft jobs, but I do not believe it accomplishes its intended purpose.”

* * *

Earlier this year our subsidiary, Edward Valves, delivered the final shipment of the equipment it was manufacturing for the first full scale nuclear power plant being built at Shippingport, Pa. Later the customer informed us that we were the first supplier of equipment for the primary coolant circuit to complete our contract.

* * *

Analysis of our Delta Power Tool Division's sales shows a very heartening continuation of the trend toward the use of light, rugged, and relatively inexpensive power tools to supplement—and often replace—heavier, costlier equipment. This is especially true where *flexible* automation is important in keeping quality output up and costs down.

One of a series of informal reports on the operations and growth of the

ROCKWELL MANUFACTURING COMPANY
PITTSBURGH 8, PA.

for its customers, suppliers, employees, stockholders and other friends



“... Ralston has developed special feeds for trout, for laboratory animals like monkeys, mice, and rats...”

STORY starts on p. 70

Memphis, and Salt Lake City. Called simply Purina X-24 Dog Chow, the new product was put on the market in 5-lb. and 25-lb. bags. Coupons redeemable for free samples were mailed to thousands of homes. Ralston people sat back and waited.

In their view, response was terrific. In Little Rock, already a strong market for its products, Ralston's market share in dog food rose from 20% to 40%. In Rochester, where Ralston hadn't even been in the running earlier, a survey showed it had 18.5% after three weeks. At Memphis, the new chow carved out a 37.7% share.

• **Ad Onslaught**—Based on results like these, Ralston felt it has a product good enough to challenge the national market. It rushed to completion a new plant at Davenport, Iowa, and began laying plans for a national advertising campaign.

The advertising onslaught released last month includes a TV program, “The Big Story,” and spot announcements on 20 stations around the country; ads in more than 50 newspapers, in a fistful of industry trade papers, and in four consumer magazines, including Life. In all, the budget totals \$3-million, broken down into 34% for TV, 18% for the four consumer publications, and the rest on local and regional advertising. In addition, Ralston estimates it spent \$1-million in product introduction before this big kickoff.

• **Sales Impact**—Though the new dog food will have been in distribution nationally for only a few months, Ralston estimates sales as of the fiscal year ending next September will exceed 65,000 tons. The company's five-year goal for its new product is 150,000 tons annually.

• **Fish and Fowl**—As in the case of the new dog food, Ralston is constantly on the lookout for new products. For example, it has developed a special trout feed for hatcheries and keeping lakes and streams stocked with the fish, and foods for various laboratory animals such as monkeys, mice and rats, for birds like pigeons, and quail, for mink, and even for insects like beetles and crickets. At present, it is sounding out the feline taste.

Dr. James E. Corbin, manager of special chow research for Ralston Purina says, “There's no limit to what Ralston Purina will develop so long as there is a potential market for the product.” **END**



Rolls of color... hundreds of uses!

Hundreds of uses?—possibly *thousands*! Every department in your plant can use "Scotch" Brand Pressure-Sensitive Tapes in colors. Some of these tapes are strong enough to tow a truck; others stick even in freezing cold. Still another group is acid, alkali, and solvent resistant. Here are a few uses you're sure to find: decorating, sealing, color coding, banding, joining, labeling. Ask your tape distributor about "Scotch" Brand Tapes in colors, or write us direct. Address: 3M Co., St. Paul 6, Minn., Dept. BF-57.

Always specify "Scotch" Brand, the *quality* tape . . . and stick with it!

COLORED TAPES . . . among the more than 300 pressure-sensitive tapes
for industry, trademarked . . .

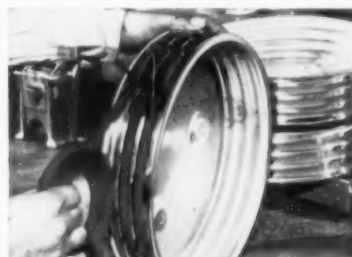
REG. U.S. PAT. OFF.
SCOTCH
BRAND

The term "Scotch" is a registered trademark of Minnesota Mining and Manufacturing Co., St. Paul 6, Minn. Export Sales Office: 99 Park Avenue, New York 16, N.Y. In Canada: P. O. Box 757, London, Ontario. © 3M Co., 1967.

Look what you can do
with colored tapes!



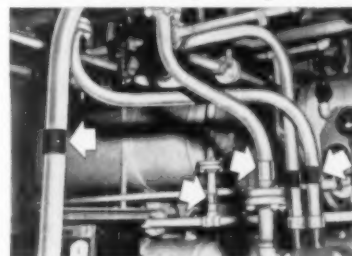
COMBINE packages in attractive combination "deals" at production-line speeds. "Scotch" Cellophane Tape and "Scotch" Automatic Package Bundler do it at a rate of 75 deals a minute.



DECORATE products. Above: fountain stools are trimmed with stripes of red "Scotch" Brand Acetate Fibre Tape No. 700. Economical and easy to apply; long-aging and tight-holding.

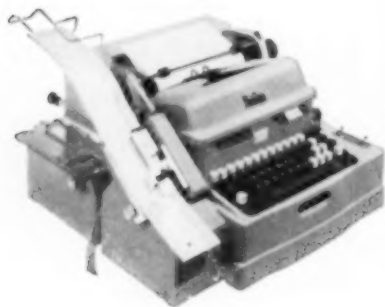


LABEL metal items or flat surfaces with "Scotch" Brand Automatic Tape Applicator and printed tape at speeds to 300 units a minute. Almost all "Scotch" Brand Tapes are printable.



CODE piping, conduits, cables, fuel lines, for easier identification, safer maintenance with bands of "Scotch" Plastic Tape. Eight vivid colors form thousands of combinations.





Frident Flexowriter®

... enables even small and medium-size businesses to make their accounting automatic. Whatever is typed on a Flexowriter—an invoice, for example—is also reproduced on by-product punched tape. Tape can then be processed by other common language Tape-Talk machines at nearest IDP center. Flexowriter tape can also be used to actuate address plate embossing machines, tabulating card punches, computers, and the same or other Flexowriters.



Frident tape-talk can systemize the work pattern in any office

Whatever your office work pattern involves—time cards, invoices, sales orders, inventory control, repetitive accounting steps—these Frident Integrated Data Processing machines can handle the job far more efficiently, a less costly way!

The means is punched tape... carrying data translated into a common code language from one automatic Frident machine to another... to another and another.

By *tape* these new machines streamline office procedures. They originate, interpret, and process on tape both numerals and words. Chance of

human errors in recopying is eliminated.

With one or more Frident Tape-Talk machines your office can realize immediate benefits from an automated system. For every pressing paper-work problem, Frident has a Tape-Talk answer. Each machine quickly pays for itself.

Here is a new kind of *automatic office* world you can't afford not to learn more about. Call your nearby Frident agency or write FRIDENT CALCULATING MACHINE CO., INC., San Leandro, California... sales, instruction, service throughout U.S. and the world.

Frident Natural Way Adding Machine

has 10-key patented keyboard, Visible Check window for accuracy. Models available with or without automatic step-over of multiplicand. Specialized adaptations of the Frident Adding Machine actuate or are actuated by IDP machines.



Frident fully automatic Calculator

is the essential programmer in many IDP systems. Operating alone or in combination with other automatic machines, this famed Calculator performs more steps in figure-work *without operator decisions* than any other calculating machine ever developed.

Friden Computyper®

is an IDP machine combining automatic writing and automatic calculating. Equipped with automatic tape punch and reader, it interprets and records both alphabetical and numerical data. Produces tape enabling other machines to transfer data to punched cards or accounting records; or data may be sent by wire to other offices. The Friden Computyper is widely used to systemize billing, inventory, cost analysis, sales distribution, statistics, other typing-computing operations.

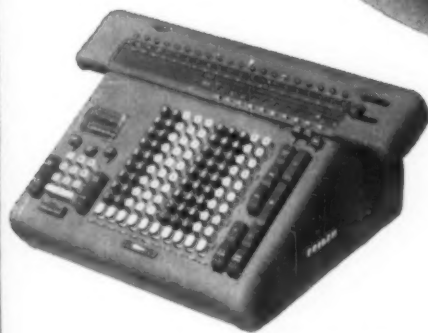


Friden Add-Punch®

is the 10-key adding and listing machine with tape punch mechanism. A key IDP unit, the Add-Punch "writes" punched tape while printing on adding machine tape. The punched tape can be interpreted by other similarly-equipped machines. Typical Add-Punch functions include recording of retail sales, sales audit, production and inventory control, and coding statistical data.

A large graphic in the center of the advertisement. It features a globe with a map of the Americas. A wide, white ribbon with a pattern of small black dots (resembling punched tape) is draped around the globe. The text "Friden Creates A New World For Business" is printed in large, bold, black letters across the ribbon.

Friden Creates A New World For Business



From the Friden fully automatic Calculator, famed **Thinking Machine of American Business**...to the unique Natural Way Adding Machine...to IDP systems units that streamline procedures with automatic Tape-Talk—chapter by chapter the **FRIDEN STREET STORY** presents challenging new opportunities for cost-savings in every office!

Friden *brings you an
automatic office*



ROCHESTER, N.Y., SUBSIDIARY



SKF

EVERY TYPE—EVERY USE

Ball Bearings
Cylindrical Roller Bearings
Spherical Roller Bearings
Tapered Roller Bearings ("Tyson")

7744

*Reg. U.S. Pat. Off. Tyson Bearing Corporation

SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.

In Marketing

• • •

Big Three Auto Makers, Others Sued By Unfranchised Dealer, Charging Plot

An unfranchised auto dealer—Willis Auto Sales, of Westport, Ind.—filed suit last week in the Indianapolis district court against the Big Three car makers, seven franchised dealers, and the Greensburg News Publishing Co.

Willis bought what it calls "excess" cars from the franchised dealers, sold them as new. It claims that, as a result of what it calls unlawful combination to restrain trade, its new car business has been "completely destroyed." Specifically, Willis charges that manufacturers "fix" car prices; that franchised dealers and manufacturers cooperated to cut off Willis' car supply. It accuses the Greensburg News of dropping Willis' ads under pressure from the other dealers.

• • •

Rich's Decides to Cast Its Lot With \$32-Million Suburban Center

Rich's, big and venerable Atlanta department store, is breaking with its downtown tradition to go into its first shopping center.

The \$32-million regional center, also a first for Atlanta, is owned by the Samuel Roberts Noble Foundation, of Ardmore, Okla., whose subsidiary, Lenox Square, Inc., will operate the center. The foundation was set up by Lloyd Noble, oilman, to research the fields of heart disease, cancer, and agriculture. Edward E. Noble, son of the founder, says the center's income will go for the same purpose.

Rich's will be the biggest of some 70 stores in what is described as "the biggest center south of New York" (72 acres, with 800,000 sq. ft. of store space for all stores). S. S. Kresge Co. and Food Fair Stores have also signed up.

In explaining Rich's move, Chmn. Frank H. Neely said the company had long known it would have to take itself to the suburbs to serve its market.

• • •

Schick Sues Sperry Rand for \$5-Million, Charging Visual Deception on TV

The possibilities of tricking the consumer's eye on TV advertising have been under some scrutiny lately. The Federal Trade Commission is looking into charges of visual deception (BW—Mar. 9 '57, p154).

This week the question came into the spotlight again. Schick, Inc., sued Sperry Rand Corp. in the New York Supreme Court for \$5-million, accusing Sperry Rand of "false, disparaging, misleading, and damaging" statements in TV commercials.

The complaint alleges that Sperry's Remington divi-

sion first identifies "Lady Schick," an electric shaver for women, as a "competing shaver" with Remington's own Princess razor. Then, the complaint says, the commercial shows another unidentifiable razor that tears a stocking—leaving the inference that the Lady Schick is rough and damaging to the skin.

The complaint cites commercials carried over Columbia Broadcasting System network on Remington Rand's What's My Line program.

• • •

Ford Buys \$5.5-Million of Radio Time From CBS; Big Names a Major Lure

Network radio, currently back in favor with a lot of advertisers, showed further evidence of strength last week when CBS-Radio picked up a reported \$5.5-million order from the Ford Div. of Ford Motor Co., through its ad agency, J. Walter Thompson, Inc. Arthur Hull Hayes, CBS-Radio president, says that the Ford order is the most dramatic vote of confidence network radio has received in 10 years.

A number of details aren't settled yet, but the order calls for four hours and 40 minutes a week of time for 26 programs, consisting of four weekday shows and six five-minute weekend programs. A key factor in the radio deal was CBS's ability to offer Ford some big names in its program package. Talent is one of the unsettled points. Arthur Godfrey and Edward R. Murrow are scheduled for shows and other names like Bing Crosby and Rosemary Clooney have been discussed.

• • •

Court Reversal of Kentucky Ruling Gives Fair Traders New Hope

"Fair traders" rejoiced last week. The U.S. Court of Appeals for the Sixth Circuit reversed a lower federal court in Kentucky, which had held that both the federal McGuire Act and the Kentucky Fair Trade Act were unconstitutional (BW—Jul. 21 '56, p36).

The appellate court held that a Kentucky state court—not a lower federal court—must rule on whether the state law violated the state constitution.

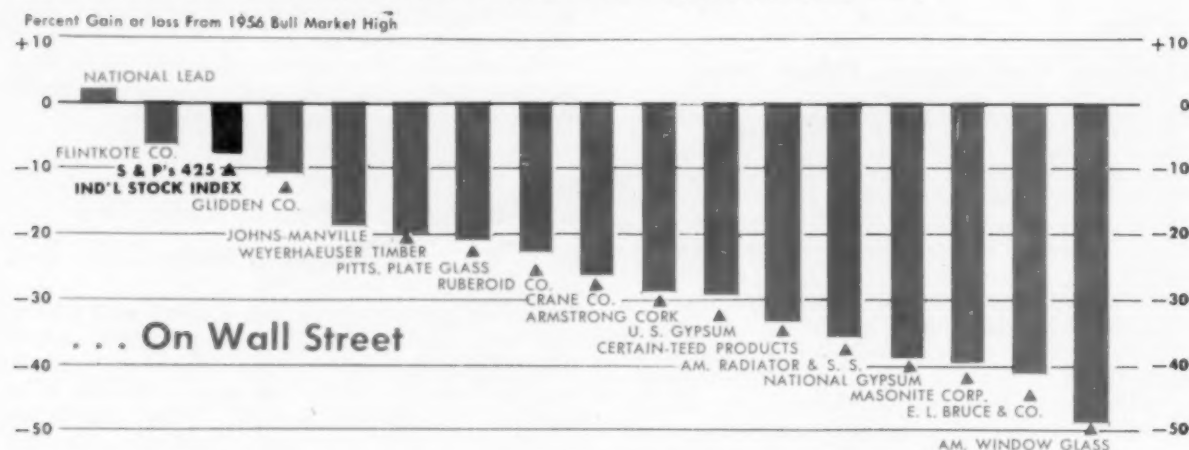
Regarding the McGuire Act (the law that spelled out the legality of the clause making fair trade contracts binding on nonsigners), the court cited the fact that the U.S. Supreme Court has refused to hear cases based on constitutionality and has stuck with its original 1936 decision upholding resale price maintenance.

The appellate court noted that, in the McKesson & Robbins case, in which the Supreme Court held that a manufacturer who doubled as wholesaler could not fair trade with independent wholesalers (BW—Jun. 16 '56, p145), the high court had said this: "The McGuire Act was not only bound by the limitations marked by Congress, beyond which price fixing may not go, but was also bound to construe such limitations strictly, since resale price maintenance is a privilege restrictive of a free market."

This statement, the appellate court said, is "certainly persuasive that the Supreme Court views the McGuire Act as not invalid on Constitutional grounds."

FINANCE

The HOME BUILDING SLUMP as Reflected . . .



... And on Building Supply Trade Earnings

Jan.-Mar. Per-Share Earnings				Jan.-Mar. Per-Share Earnings			
	1957	1956	Change		1957	1956	Change
	\$	\$	%		\$	\$	%
Heating, Plumbing				Wall Board, etc.			
American Radiator & S. S.	0.26	0.48	-45.8	Armstrong Cork	0.55	0.72	-23.6
Crane Co.	0.26	0.80	-67.5	Certain-teed Prod.	0.12	0.06	+100.0
Holland Furnace	D0.47	D0.34	-	Flintkote Co.	0.59	0.51	+15.7
Murray Corp.	0.35	0.57	-38.6	Johns-Manville	0.41	0.64	-35.9
Walworth Co.	0.55	0.60	-8.3	Masonite Corp.	**0.60	**1.14	-47.4
Glass				National Gypsum	0.76	1.34	-43.3
Amer. Window Glass	D0.34	0.77	-	Ruberoide Co.	0.45	0.45	-
Pittsburgh Plate Glass	1.34	1.60	-16.3	U. S. Gypsum	1.01	1.20	-15.8
Paints				Lumber			
Glidden Co.	**0.65	**0.74	-12.2	E. L. Bruce	0.13	0.87	-85.1
National Lead	1.22	1.16	+5.2	U. S. Plywood	*0.53	*1.26	-58.0
				Weyerhaeuser Timber	0.38	0.46	-17.4

D. Deficit. * Quarters ending January 31. ** Quarters ending February 28.

© BUSINESS WEEK.

Suppliers Fall Out of Favor

Once-popular shares of companies that produce building materials have slid far below the market as a whole. Investors see hard going for the homebuilding trade for years to come, though there are offsetting gains to be made.

AS HOUSING STARTS decline, many companies that supply the homebuilders are suffering a loss of earnings (table, above). And the investment world centered around Wall Street doesn't take kindly to the profits pinch. Building supply shares have dropped farther from their 1956 highs than the market as a whole (chart, top).

Bitterness of investors seems to have been intensified by the fact that, a year or two ago, building supply stocks were among their darlings. Only two years ago, housing starts ran a mere

100,000 below the record 1.4-million in 1950, and last year stayed fairly strong with 1.1-million starts. Now, however, most observers look for between 900,000 and 1-million starts in 1957; April's seasonally adjusted annual rate was a dull 940,000.

Suddenly, too, the longer-range prospects have dimmed, with the rate of household formations destined to remain sluggish for years (page 200).

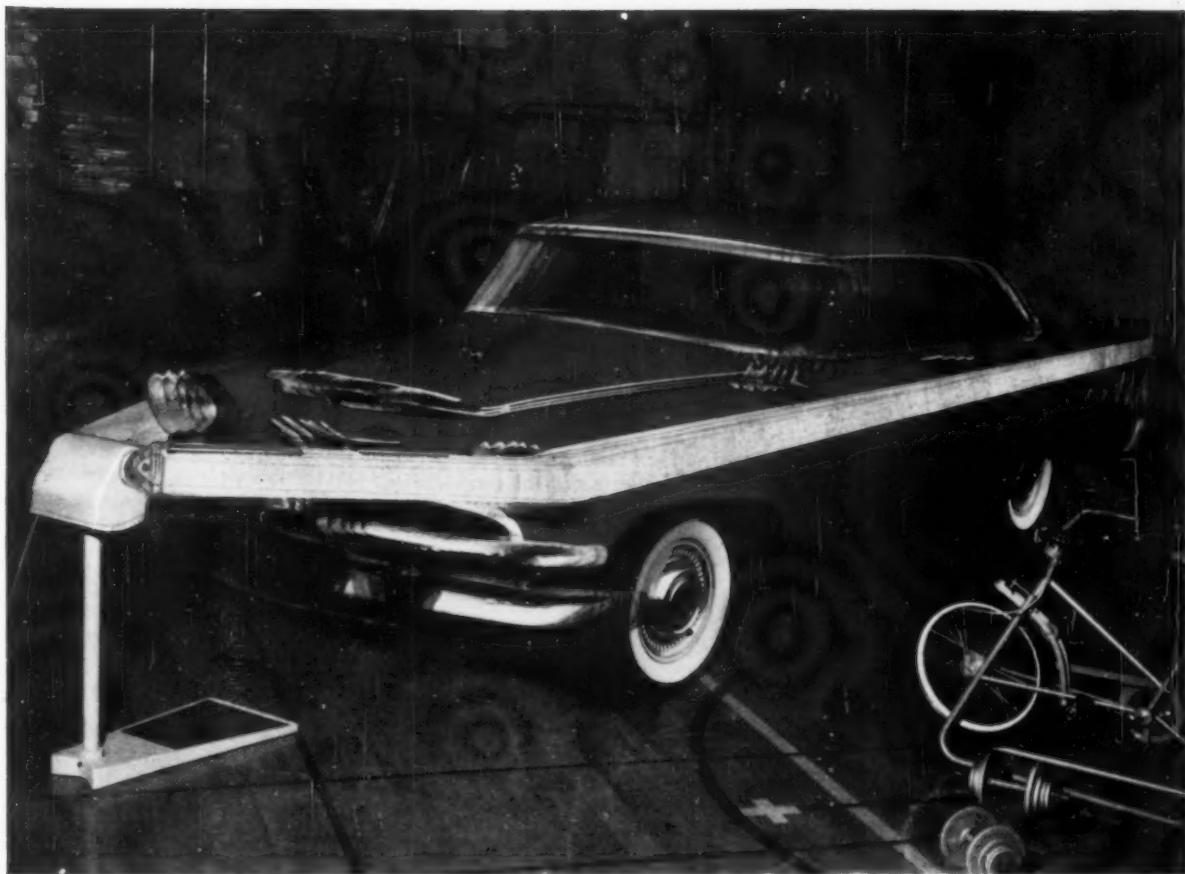
"Investors now are completely apathetic toward these shares," says an analyst who specializes in building sup-

ply stocks for a major Wall Street brokerage house. "They feel the group will stay in the doldrums for the next three years."

• **Degrees of Pain**—Few manufacturers of building supplies depend wholly on the residential construction market, but some are tied more closely to it than others. In some cases, companies have completely offset the loss in homebuilding sales by increases in other areas of their business.

Plumbing, heating, and gypsum companies are among those that draw much of their income from sales to homebuilders. But they also sell substantial volume to homeowners who are repairing or modernizing their houses. The fix-up market could be a big help to their earnings if it should expand.

Celotex Corp., for example, figures



Why cars don't mind having the shakes

An occasional health club shake-up makes people feel better. But everyday road vibration can make cars grow old too soon.

Tinnerman **SPEED NUTS** are helping prevent this, on cars as well as appliances, toys, and all types of assemblies.

Here's how we make certain that **SPEED NUTS** will hold tight even under severest vibration. Special vibration equipment in our lab shakes **SPEED NUT**-fastened assemblies strenuously in three directions, cycling from only a few strokes to 3600 cycles per minute. Every **SPEED NUT** designed must undergo this test . . . and every one must pass before it's approved.

This is another reason why you can rely on any Tinnerman **SPEED NUT** Brand

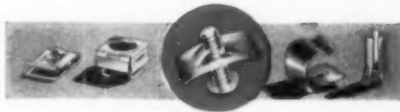
Fastener to give your assemblies greatest fastening security.

Write for "A Story of Quality", which describes the complete Tinnerman research facility. Address:

TINNERMAN PRODUCTS, INC.
P.O. Box 6688 • Dept. 12 • Cleveland 1, Ohio

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Speed Nuts®



FASTEST THING IN FASTENINGS®

Are your small assemblies
causing late production dates?



ELGIN

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miniature assemblies at lower cost on schedule!

Manufacturers unfamiliar with the specialized techniques of handling small, precision parts often run into costly production delays. Unusual skills, methods, tools and a depth of specialized experience are needed to manufacture and assemble miniaturized parts in volume. That is why leading companies make a date with Elgin to have this work done for them... after all, Elgin has been "making dates" with miniaturization for years. When your big problem is a small assembly, save cost, call Elgin.

ELGIN NATIONAL



WATCH COMPANY

MICRONICS DIVISION • ELGIN, ILLINOIS

RESEARCH AND DEVELOPMENT FACILITIES AT ELGIN, ILLINOIS AND BURBANK, CALIFORNIA;
MANUFACTURING FACILITIES AT ELGIN, ILLINOIS AND LINCOLN, NEBRASKA

that about 45% of its business is in the residential field, but its residential sales drop only half as fast as the rate of housing starts. Other companies say it's hard to estimate the effect of the housing decline on their business; they have only a vague idea of how much of their output goes into new houses, how much into existing homes (BW—May 4 '57, p136).

• **Hitting Bottom**—Executives in the building supply industry talk more confidently than Wall Street investors act. They say the industry is at or close to the bottom of the dip. "The worst is over," says the president of a big West Coast lumber company.

Optimists are talking about housing starts upward of 1.5-million in the early 1960s, about the new wave of family formations when the offspring of the early postwar years come of marrying age. "It'll be the biggest homebuilding boom in history," exclaims an analyst.

Until homebuilding reaches this boom, however, building materials suppliers may be carrying a lot of overcapacity. Right now, they have the capacity for 1.4-million housing starts per year. With the exception of cement and possibly steel, virtually every material that goes into a new home is in easy supply.

• **Effect on Profits**—This condition is responsible, more than anything else, for the disenchantment of investors. They look at earnings, and they don't like what they see.

With most materials abundant and competition keen, it's hard for makers of building supplies to put price increases into effect. Yet their costs are going up—labor, raw materials, freight, even the expense of carrying idle capacity. First-quarter earnings show what's happening to their profit margins.

As a group, the plumbing and heating companies have suffered particularly in the price squeeze. Their furnaces and bathroom fixtures aren't so interchangeable with other markets as even the output of the lumber mills. And the price trend has been down as home construction has sagged.

Last May, the Bureau of Labor Statistics index for plumbing equipment prices stood at 135.0; last month, it was 131.6. The heating supply index similarly declined. Several plumbing and heating companies cut their dividends last quarter. Iron Fireman Mfg. Co. omitted a dividend for the second quarter in a row; Briggs Mfg. Co., maker of bathroom fixtures, halved its 40¢ quarterly rate for fourth-quarter 1956 and deferred action on first-quarter 1957.

• **Stiffening Prices**—In contrast, cement and steel suppliers aren't much affected by a slide in residential construction. Only 2% or 2½% of total steel production, for example, goes into homebuild-

Capital Replacement: A Dilemma of Inflation

GVA

A QUARTER CENTURY of monetary depreciation has created a host of problems, but few more perplexing to businessmen or more menacing to orderly economic growth than that of financing the replacement and expansion of industrial plant and equipment. Obviously, depreciation reserves based on the original cost of capital goods will not be large enough to replace these goods if the cost of replacement has been increasing. In the course of a sustained period of steadily rising costs, the deficiency can become an extremely serious matter.

The problem is aggravated by the continued use of accounting practices and tax policies founded upon the traditional assumption that money is a dependable standard and store of value over long time intervals, an assumption which the experience of recent years has belied. Some industrial managements are now in a real quandary over how to finance needed capital expenditures for which no adequate provision has been found possible and are calling upon government to re-examine the concepts of depreciation and profit underlying the revenue laws.

Profit or Capital Consumption?

The Machinery and Allied Products Institute has developed an index of prices of business capital goods (plant and equipment) which shows that the average cost of such goods has approximately tripled since 1933. The amount by which original-cost depreciation falls short of providing for replacement at current costs amounts to approximately \$6 billion a year, according to the Institute's calculations. The Institute calls this figure the amount of capital consumption on which American industry will pay income taxes this year.

The Federal Government has done virtually nothing by way of recognition of the serious financial problem of capital replacement which business faces because of the shrinkage of the dollar. If government is primarily responsible for the stability or instability of the dollar, it behooves government to correct, in so far as possible, the inequities and hardships arising from instability, especially when these inequities and hardships involve a direct threat to the sound maintenance and growth of the economy.

A Good Place for Tax Relief

It is not necessary to disturb time-honored definitions of depreciation and profit. Capital replacement is more a problem of practical business finance than a question of accounting terminology. Instead of permitting depreciation reserves in excess of original cost, the purpose would be adequately served by tax-free accumulation of funds under some other name, such as special replacement reserves, for example. The additional funds must be set aside for replacement in any case, and it is both unfair and economically destructive that they be taxed as ordinary profit by the very government that has created the difficulty by failing to maintain the value of money. When the state of Federal finances makes tax relief possible, this would be an excellent place to begin.

From the May issue of THE GUARANTY SURVEY, monthly review of business and economic conditions published by Guaranty Trust Company of New York.

The complete issue is available on request.



Guaranty Trust Company of New York

Capital Funds in excess of \$400,000,000

140 BROADWAY

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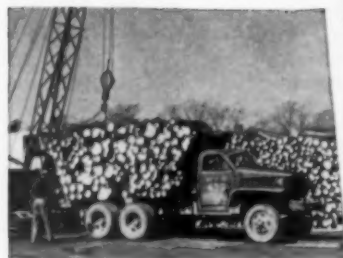
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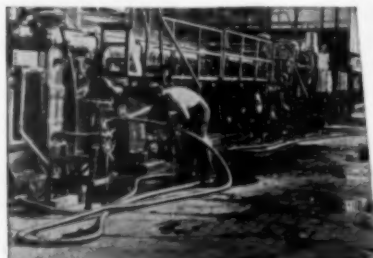
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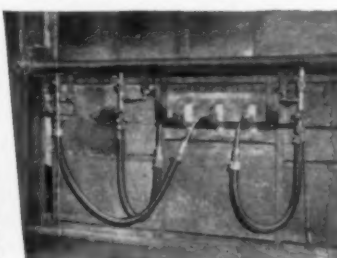
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ing, and cement companies look to highways, public buildings, industrial and commercial projects for their big market.

Undismayed by the conduct of the new-home business, cement makers have steadily boosted their prices. Most Eastern mills have just jumped prices 10¢ or 15¢ a barrel, and the rest of the country is expected to follow suit. Paint makers, too, hiked prices last week, on top of a rise of 3% to 5% at the wholesale level last September and some additional rises in March.

Prices of gypsum sheathing are about 1% higher than a year ago, but all of the increase took place in 1956.

• **Home Improvement**—The gypsum trade plans increasing emphasis on home modernization, to make up for the shrinkage in home construction.

"Our approach at the start of this year," says Chmn. Melvin H. Baker of National Gypsum Co., "was to organize our efforts to put more of our business into repairs and modernization work, and into commercial and industrial uses." However, the company still gets 65% of its business from homebuilding, and per-share earnings for the first quarter dropped 43.3% from a year earlier (table, page 80).

The paint makers are actually better off as stress is laid on home improvement rather than new homes—less than 6% of their residential paint volume comes from construction, anyway. When family budgets are tight and credit is hard to get, people postpone roof repairs and heating-plumbing installations because they don't have the skill or equipment to do it themselves. But they're likely to redecorate their homes by their own labor.

National Lead Co. succeeded in lifting its first-quarter earnings per share, but did it by expanding titanium, nickel, and thorium operations as well as by boosting paint sales.

• **Shift of Markets**—Both glass and lumber hope to gain by the home improvement campaign that the industry is pushing. Many homeowners, they hope, will install picture windows, new paneling and partitions, material to finish expansion attics. But they count even more on the growth of other sectors of the market.

For example, even if fewer homes are built and fewer cars are assembled, the glass makers point out that modern homes and automobiles contain more glass. And increased activity in office, factory, school, and hospital construction—all big users of glass, thanks to modern architecture—is buoying up the total demand for glass.

The lumber business, too, is hopeful that demand for the heavier timber used in industrial, commercial, and public construction will more than balance the loss in homebuilding. **END**

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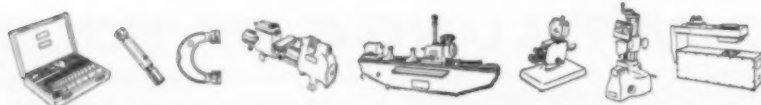
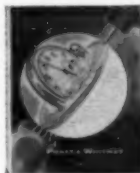
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Atom Risk Insurance Being Written at Last

Insurance policies covering atomic energy risks are being written at last. The Nuclear Energy Property Insurance Assn., composed of 185 capital stock insurance companies, is covering—subject to final rate and review—a chemical processing plant in Missouri. The association is also reviewing some 22 other risks in which nuclear hazards are involved. The association has a net underwriting capacity for property damage at \$40-million per risk. This is expected to increase to about \$60-million in the near future with the help of foreign reinsurance now pending.

Liability insurance policies are being prepared by the 138-member Nuclear Energy Liability Insurance Assn., which will have a capacity of \$50-million a risk when foreign reinsurance is arranged. Between the two associations, companies working with atomic processes and materials will be able to purchase insurance protection of up to \$100-million against atomic risks.

Sen. Clinton P. Anderson (D-N.M.), a member of the Joint Committee on Atomic Energy, says that rates are still too high for the small reactor operators.

Chase Manhattan Move To Staten Island O.K.'d

The Chase Manhattan Bank, which at last report (BW—Apr. 13 '57, p90) had lost its title as New York's largest and the nation's second largest bank to the First National City Bank, will soon extend its operations for the first time across the harbor to Staten Island.

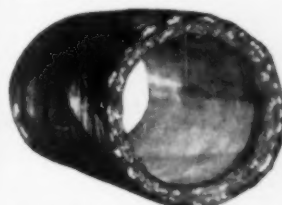
This week the New York State Banking Dept. gave preliminary approval of a Chase Manhattan merger with the Staten Island National Bank. Stockholders are expected to approve on the basis of six shares of Chase Manhattan for one Staten Island National.

Chase Manhattan, which already has 93 branches, will obtain five more, with about \$36-million in resources and a commanding position in the only remaining growth territory within the limits of New York City. Competition on the island consists of local banks, two branches of Chemical Corn, and a First National City unit.

Although Staten Island's population of 210,000 represents only 2% of New York City's, it is the equivalent of a New Haven or a Des Moines. The Island's area is twice that of Manhattan; about half of it is vacant. The island's growth may be accelerated in a few years if the proposed Narrows Bridge to Brooklyn is built. **END**



Conventional high-quality acid hose is charred and cracked after only 8 weeks' use.



Hose lining of HYPALON in same service (66° Be. sulfuric acid) shows no damage in 2 years.

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Rogers stopped spillage and acid burns with swing-joint steel pipe, but it didn't solve the problem because it was heavy and cumbersome. They tried a new kind of acid hose lined with Du Pont HYPALON synthetic rubber, as HYPALON has extraordinary resistance to oxidizing acids and chemicals. This hose looks like new after two years, handling an average of 60,000 lbs. of 66° Be. sulfuric acid daily.

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FINANCE BRIEFS

The investment trust trade now has two billion-dollar units. On Mar. 31, assets of \$1,029-million were reported by Investors Mutual, Inc., an open-end balanced fund with headquarters in Minneapolis. That put it close on the heels of the \$1,073-million held on the same date by Massachusetts Investors Trust, the nation's oldest common stock fund.

Business loans of Federal Reserve member banks rose \$195-million in the first four months of 1956; in the same year-ago period the rise was \$1,437-million.

... A major borrower was the Royal Dutch-Shell oil group. It was learned last week the oil combine borrowed \$150-million earlier this year from New York banks, to help pay for Venezuelan oil concessions.

Many big financing deals are in the offing. Two companies are planning \$70-million bond offerings, three have \$50-million projects. Other offerings will include three of \$40-million, three of \$35-million, seven of \$30-million, and 14 of \$25-million.

The SEC has scrapped two plans for tightening rules covering security offerings of less than \$300,000. The action followed a marked decrease in the number of these offerings, and a lessening of fraudulent sales among the small flotations.

Soap has changed from an "uncomplicated . . . business . . . into a chemical industry requiring extensive research," says Kelly Y. Siddall, Procter & Gamble vice-president. "One out of every six of our employees is now engaged in some phase of research," Siddall said, adding that "more than half of our volume today is coming from products that didn't exist in 1945."

\$27-million of new stock is being offered to its shareholders by the Bank of Montreal. That's 900,000 shares, priced at \$30 each.

State governments went into the red by \$490-million in the fiscal year that ended last June 30, with total state debt climbing to a record \$12,890-million. That's the report of the Census Bureau, which adds that revenues reached a peak of \$18,385-million, while spending was at an equally record-smashing \$18,875-million. Education took the biggest bite—\$5.7-billion, or 12% more than the year before. Highways came a close second with \$5,351-million, a rise of 11%.



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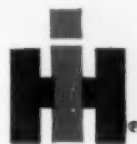
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Who Wants Defense Work?

● Some companies have to be in it. They've grown up on it, and that's where their market is.

● But others that have more choice about it are cutting government work to a smaller share of volume.

● At the same time, still others are seeking defense contracts to make up for shrinkage in civilian markets.

"Defense business today is like a wife. You can't live with it, and you can't live without it—you adapt to it."

This remark by a Midwestern industrialist is echoed by businessmen everywhere. After 15 years of blowing hot and cold on defense work, most of industry has decided that international tension is practically permanent, that defense business is here to stay at close to its current volume. Yet few companies want to live with government contracts, forsaking all others.

Some industries have little choice—aircraft, missiles, electronics are in this category. Says an official of Clevite Corp. of Cleveland: "Last year, electronics was a \$6-billion business, and the government took 75% of those sales. If you want to be in electronics, you can't extricate yourself from defense business even if you want to."

However, a nationwide survey by BUSINESS WEEK finds that three times as many companies are trying to reduce their share of defense work as to increase it. Nearly as many companies are trying to get out of government work entirely as are seeking to break into it.

I. Big Business Factor

Over-all, defense business is a major factor in today's economy that industry can't afford to ignore, regardless of how the individual companies feel about it. In the 18 months ended last June, the Defense Dept. awarded \$25.6-billion worth of prime contracts—an annual rate of close to \$18-billion, compared with an annual rate of \$55-billion for all business and consumer spending on hardgoods. And the defense contracts don't include sizable expenditures for thousands of standard supply items.

Nobody knows for sure exactly how many companies share in defense business. The 100 companies listed for the latest 18-month period accounted for nearly 69% of all prime contracts. If all subcontractors are included, a Penta-

gon source estimates that roughly 40,000 companies are involved.

• **A Shifting Load**—The makeup of this total is continually shifting as government policies and the companies' own policies adjust to new conditions. Of the top 100 companies listed in the 1950-53 Korean War period, 42 don't appear in the latest list.

These changes come about for two main reasons:

• Military strategy has switched the emphasis from conventional equipment such as tanks, guns, and ammunition to airpower and guided missiles. Relatively few companies have found it feasible to shift to the new fields.

• Many companies find civilian business too attractive, profits too low in defense work, or competition for government contracts too strenuous. So they have either reduced their volume of military business or have quit the field entirely.

Meanwhile, new companies are entering the business of supplying Uncle Sam. The Ordnance Tank Automotive Command in Detroit says companies that shrugged off defense work a couple of years ago are now knocking on the door, seeking their share of military spending. The command has had to split its business among 13,000 suppliers instead of the 11,000 of only two years ago.

II. Pros and Cons

Both the advantages and disadvantages of relying on military business can be seen in one of the largest companies in the field—General Dynamics Corp. (BW-May11'57,p61). Direct defense business accounts for 75% to 80% of General Dynamics' volume.

On the positive side, defense work has boosted the company's sales from \$336-million in 1950 to more than \$1-billion last year, and it has given the company technological leadership in atomic submarines and a high place in aircraft, missile, and electronic fields.

On the negative side, the company's

profits last year ran slightly less than 3% of sales, compared with 7.1% for the average manufacturer.

• **Compensations**—To counterbalance the slimmness of the profit margin, General Dynamics sees other advantages in staying in defense business.

"Defense industry in the past generation," says Vice-Pres. Thomas G. Lanphier, Jr., in charge of long-range planning, "has accomplished technical advances which others, concentrating in commercial fields, haven't touched. Every single technological advance in the automobile industry in the past 15 years can be matched by a hundred in the aircraft industry. Maybe we did it because we had to, but the challenge is the stimulant that brings us people with the greatest ability—scientific, technical, even executive."

Other companies also find challenge and stimulus in the difficulties of defense work. A small Georgia papermaker notes: "It's exceptionally good training for our personnel. If the work isn't right, it's rejected. Snaps 'em right up on their toes."

III. More Pro Than Con

Businessmen who discussed the problem with BUSINESS WEEK reporters generally cited three kinds of reasons for soliciting defense work:

• The government finances research and development that the company couldn't hope to undertake alone.

• Defense contracts cover overhead or take up the slack in bad seasons.

• It's good to keep a foot in the door in case of another war.

• **Development Work**—It's generally agreed that the profit in defense contracts is in production, not development work. Yet many companies—though only a fraction of the estimated 40,000—offer government-financed research as a prime reason for interest.

Says Don C. Pippel, manager of Ford Motor Co.'s mobilization planning and defense sales: "In research and development, defense work obviously can form a springboard to other fields, some of them commercial." A Crane Co. official points out: "What were once government specials are now standard products, such as the chlorine valves we originally developed for chemical warfare."

"The biggest advantage of defense work," says Dr. Oliver W. Burke, Jr., of Burke Research Co., Detroit specialist in rubber and plastics, is that it goes into areas where extreme conditions apply. That allows us to explore funda-

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mental problems whose objectives go beyond industry into critical areas that most commercial research doesn't go near."

• **Plugging the Holes**—Many companies confess that they go after government business largely through inertia. "It's easier to go after the government as a customer," says one executive, "than to buck the consumer or industrial markets. And once you're in, they keep coming back for more—and it's easier to take this business than to refuse it."

A Cleveland company makes a consumer product that would quickly lose its market position in wartime. The company wants to keep "a little bit of defense work" permanently on hand as a wedge to full-scale war work if the emergency should arise.

Other companies, such as Fafnir Bearing Co. of New Britain, Conn., have products that are interchangeable between civilian and military markets, and "as long as the money is being spent, we want our share."

Many more companies want defense work to take up the slack in civilian demand. "We wouldn't bother with it if we had enough civilian orders," says an official of a large Southern textile company, "right now we like anything that keeps our looms running."

• **Sticking to Their Last**—Over and over, companies say it's unwise to take on defense products that differ too much from their regular line. They see nothing but trouble in trying to meet rigid specifications on unfamiliar products. A brassiere maker who took a contract to make life rafts, for example, nearly went broke.

"We'll be glad to bid on anything we already make," says a tool maker. "If we don't like the specs, though, or if the thing will be particularly tricky, we bid so high we know we won't get it—that way we still keep our name on the list."

This attitude may be softening. A \$100-million hardware company has for years accepted government orders only for its standard commercial products, "although we may add a hole here or make the item a little bigger." Now, with homebuilding in a slump, the company spokesman says: "If business falls off much more, we'll get down to Washington and take anything we can, to keep our shops working 40 hours."

• **Winning Formula**—The consensus among companies that were interviewed seems to be that there's only one way to be really successful in defense business: to be ahead of the crowd in developing and, if possible, producing the advanced items—missiles, aircraft, electronics, nuclear stuff—that change so fast that no price norms can be set and competitive bidding is impractical.

In standard items, businessmen say, competition is too rough. "With the



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"... some companies are going out of defense business without any choice about it . . ."

STORY starts on p. 91

pressure off," a metal fabricator says, "the government is price-shopping. There are so many hungry outfits underbidding just to pay fixed charges and keep themselves going that you practically have to work for free."

IV. More Con Than Pro

Some companies are going out of defense business without any choice about it. A Pennsylvania machinery maker with a volume of \$200-million a year, for example, has dropped military work from 50% of its sales to less than 12% because its tank armor and gun components are no longer needed.

Others are making a point of reducing or even eliminating their reliance on defense work. Koppers Co., which does a business of \$300-million a year in chemicals, metal products, engineering, and construction, has been cutting back and in 1956 cleaned up its last contract. "Defense business is so much up and down," says an official. "Contracts are always renegotiable; profits slim. Unless a crisis develops, we'll pass."

International Harvester Co. has cut its defense business back to about 4% of its billion-dollar volume because defense profits are so slim.

• **Too Much Crutch**—With military spending variable from year to year, companies worry about depending on it too much. A Georgia manufacturer of trailers is pleased that government orders helped it to expand—the military takes 200 of the 500 trailers it makes each month, and the company has just finished a \$1-million expansion. But the company is the only major employer in a small town, and it fears what a cutback would do to local economy.

• **Chief Complaints**—Renegotiation is the principal complaint of defense contractors. "You're lucky if you can get 7% before taxes," a manufacturer grumbles, "and you never know when they'll take that away from you."

Others complain about red tape ("the buying office doesn't tell the inspectors that the specs were changed, and you're tied up for weeks"), the fact that contractors for research often don't get the more profitable production contracts, invasion of privacy ("a government man brought my competitors into my plant and showed them my processes"), and the government's unwillingness to recognize, on cost-plus contracts, emergency costs or even some normal corporate expenses. **END**

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In the foreseeable future, cargo-carrying missiles can be expected to fly shipments anywhere in the world hours faster than the fastest jet planes.

The same kind of intensive research that brought about the "thinking" FALCON air-to-air missile developed by Hughes for the Air Force will make such cargo missiles possible. Their safe guidance and control from take-off to landing will be assured by systems which include such electronic advances as Hughes SEMICONDUCTORS.

SEMICONDUCTORS are but one example of Hughes Products leadership in electronics research, development and manufacturing. These and other Hughes electronic

advances promise undreamed-of wonders as spectacular as cargo-carrying missiles.

Hughes backs its semiconductors, electron tubes and industrial systems and controls with a long record of technical accomplishment. These include not only the FALCON, but also the self-directing Hughes Automatic Armament Control, standard equipment on all Air Force interceptors.

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IN ELECTRONICS



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No other carton offers Cluster-Pak's double protection. You get the unequalled strength of famous Mead quality kraft combined with the world's only self-locking construction that needs no glue. So your products are safer in Cluster-Pak! For full details on low cost market tests, write P. O. Box 4417, Atlanta 2, Georgia

Atlanta Paper Company

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THE SPEAKER was Theodore V. Houser, chairman of the board of Sears, Roebuck. He talked of corporations as trustees for public.

A Code for Corporate Citizens

Business bears ever-broadening responsibilities in U.S. society today, Sears' board chairman says in the McKinsey lectures.

BIG BUSINESS may be the long-time bugaboo of many liberals—and even some businessmen. But it's here to stay.

This viewpoint—a far cry from the defensiveness that has characterized many businessmen for years—has recently been enunciated with new aggressiveness by some articulate spokesmen. This week, with equal confidence, one of them concluded a series of three lectures on a related concept—the multiple responsibilities faced by corporation management today.

The speaker was Theodore V. Houser, chairman of the board of Sears, Roebuck & Co. (top picture, above), and Columbia University supplied the rostrum in the second annual series of



THE AUDIENCE at Columbia Business School listened intently to three Houser lectures. The message: Business must consider employees, customers, suppliers, the community.

The News

Miami Herald

The Philadelphia Inquirer

The Journal of Commerce

Orlando Sentinel

Wilmington Morning News

Lake Wales

Washington, D. C. Daily News

"I have watched the development of many areas in Florida, but never have I seen one to quite equal the scope of this ambitious undertaking."

The MIAMI HERALD

"A Florida development that is living up to its fanfare is Indian Lake Estates. Leon Ackerman is the Washington realtor who is creating the state's first private city on 7,000 acres. Last July, The Herald carried a story about this heavily-advertised development. The verdict then: Indian Lake Estates was NOT in the wildcat and misleading mail-order pattern."

PHILADELPHIA INQUIRER

"Great progress is already going forward at this multi-million dollar development . . . Indian Lake Estates."

The Journal of Commerce, New York

"Indian Lake Estates announced plans for the construction of many new homes on the property. They will be built along modern lines. Under the recorded plans, Indian Lake Estates will become a closed community similar to Mountain Lake nearby."

ORLANDO SENTINEL

"This country club community is advancing from the drawing board to reality at a pace which credits the vision of the developer."

WILMINGTON MORNING NEWS

"Huge earth moving machinery is working day and night in the big development operation at Indian Lake Estates, near Lake Wales in one of the most beautiful areas of the Ridge Section of Central Florida."

ROGER BABSON, NOTED ECONOMIST LAKE WALES NEWS

"Babson predicts land values to rise as Indian Lake develops."

MIAMI DAILY NEWS

"Indian Lake Estates is living up to developers' claims . . . you can see with your own eyes what Ackerman is doing."



Actual Photograph: Indian Lake Estates' 15-sq. mile spring-fed lake, fringed with palms, has a firm, sandy bottom sloping gently from the shore.

INDIAN LAKE Estates

*A Multi-Million Dollar Private, Planned
Country Club Development in South Central Florida*

18 MILES SOUTHEAST OF LAKE WALES!

FOR VACATIONS, FOR YEAR-ROUND LIVING!

Indian Lake Estates, the widely acclaimed Country Club Development, borders 15-square mile Lake We-oh-ya-Kapka in the beautiful highland lake country of South Central Florida. In its delightfully dry climate you can enjoy year-round outdoor activity. There is a difference in climate: higher, dryer, cooler in summer, warmer in winter.

Indian Lake Estates is expertly planned for discriminating people. All purchasers must be approved by the Indian Lake Club. Building plans must be approved by the Architectural Control Committee. Personnel at the gate entrances to the property maintain the complete privacy of this community.

Here you will enjoy friendly suburban privacy with the conveniences of a metropolis. All residential sites are one-half acre, 100 feet wide by 218 feet deep, with an additional 70-foot park-strip back of each site . . . priced from \$1750. Sites fronting the golf course or on the lagoons are proportionately priced; business sites available. Terms can be arranged.

High above sea level (a gradually rising elevation from 64 to 115 feet) and away from enervating humidity and the threat of hurricanes, this beautiful lake property is close to both Ocean and Gulf. The ideal location, incomparable climate and the expansive beautification and improvement program explain the wide acclaim which this multi-million dollar development has received.

Leon Ackerman

President of Indian Lake Estates, Inc.

WASHINGTON, D. C.

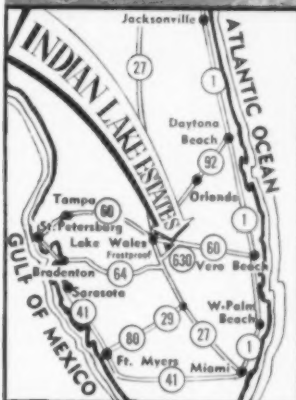
910-17th STREET, N.W.



The magnificent club house and 18-hole golf course are now under construction.



Actual Photograph: Indian Lake Estates' 1000-ft. private pier (longest fresh water pier in Florida) on Lake We-oh-ya-Kapka for Indian Lake Club members.



Located 75 miles south of Orlando in the beautiful highland lake section and close to the Atlantic Ocean and the Gulf of Mexico . . . the most delightful climate and the prettiest part of Florida.

INDIAN LAKE ESTATES

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Gentlemen: Please send me without obligation illustrated brochure with master-plan of the Indian Lake Estates, Florida, development.

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lectures sponsored jointly by the university and the McKinsey Foundation for Management Research.

Houser's thesis is that the managers of today's giant corporations are responsible for more than just turning a profit. Once, the company paid fealty only to its owners. Now, in addition, it must consider employees, customers, suppliers, the communities in which all live, government, the nation as a whole, and even new obligations overseas.

• **One Heresy**—In general, most executives would agree, despite certain differences on how to put the ideas into practice. But there is no such accord on another statement, tucked innocently into the end of one of his addresses—that top management is overpaid.

Houser admits that executive talent is scarce and much in demand. But he thinks salary structure merely reflects custom in the marketplace—and that there should be some changes made. Management, he says, should reckon on some compensation other than pure cash if it's sincere in believing (1) that the publicly owned corporation is the most effective way to serve the nation's material needs, and (2) that it directly and indirectly affects everyone's cultural desires and needs.

After all, says Houser, the services of great educators, great scientists, and great public servants—equally valuable to the nation—aren't measured exclusively in cash terms. If management changes its emphasis, he suggests, the public will be quick to recognize that it isn't—contrary to some opinion—devoted purely to its own selfish interests.

• **No Details**—Houser didn't spell out a way to achieve this salary revolution. He was more specific, however, about the responsibilities of corporations.

In the McKinsey lectures, he was speaking against a background set last year by Ralph J. Cordiner, president of General Electric, in the inaugural series. The lectures are designed as a sounding board for leaders of large business organizations—described by Dean Courtney C. Brown of the Columbia B-School as "more and more typical of our society." Their aim is to close some of the gaps between classroom theory and business reality, and to put business philosophies to the test.

Last year, Cordiner said bigness in business is here to stay. In any industrial society—U. S., German, English, or Russian—units of production and distribution must be big, so as best to deal with the many segments of modern business, he declared. He singled out this country's large companies as the most effective, described ways to manage them, and concluded with a discussion of future problems.

This year Houser went on from there. • **Unique Economy**—As head of the world's biggest distributing concern,

Houser has been an architect of many of the current changes in patterns of consumption and distribution. His thesis, in essence, is that in all its history the U. S. has been evolving an economy new and different from any other in the world.

Some of its trademarks:

- The avoidance of detailed central planning by government.
- The existence of competition—guaranteed by measures such as the Sherman and Clayton Acts.
- The rise of large units of production and distribution.
- Mass marketing, with savings to customers through lower prices or improved merchandise.

In the process, the U. S. has become the world's richest and most productive nation. Now, Houser thinks, there is a new business trademark—the feeling of responsibility among large companies. This takes various aspects.

Responsibility to employees: In Houser's view, this is a paramount obligation. No longer is it enough to give a worker a day's pay for a day's work and then forget him. There are many other problems to meet. For instance, most people nowadays work for somebody else. As companies get bigger, an individual's future is often determined more by an impersonal administrative process than by the free play of the labor market. So it's possible for an able man to be buried. To avoid this, Houser suggests that companies:

- Select the right kind of people in the first place, to fit easily into the company and its special needs.
- Expose them to as varied experience as possible—and keep the best moving upward.
- Give them the maximum possible autonomy and authority—advice often preached but little practiced, Houser contends.
- Let them know what the company is doing—and why.
- Give them an interest in the business, its security, and theirs—through salary policies and such devices as pension and stock-sharing plans.

Responsibility to stockholders: The primary way to meet this, says Houser, is to maintain a healthy company and pay dividends. But he admits that the problem of communicating with shareholders has him stumped. Stockholders of big corporations often lack the traditional owner's sense of responsibility, he laments.

Houser's solution of the moment:

- Full disclosure of management thinking on reinvestment of earnings.
- Full disclosure of company operations in annual reports.
- Regular explanations of long-term plans and expectations.
- Regular payment of at least

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IN MAKING TRANSISTORS

Germanium crystals, the heart of transistors, are "grown" in quartz enclosed furnaces at a temperature of about 1760°. A furnace atmosphere of purest hydrogen is maintained to prevent oxidation of the germanium. Minneapolis-Honeywell crystal manufacture is shown.

IN POWDER METALLURGY

Tungsten and molybdenum metal powders, needed for producing strong, ductile metals with many uses, are obtained by treating base materials with high purity NCG hydrogen piped to special furnaces, as shown here at Fansteel Metallurgical Corporation.

IN ELECTRIC POWER GENERATION

Because of the high heat conductivity of hydrogen, it is circulated as a cooling agent through large power generators such as those of the Commonwealth Edison Company in Chicago and Northern Illinois. The volume of hydrogen used is small, but its dependable supply is vital.

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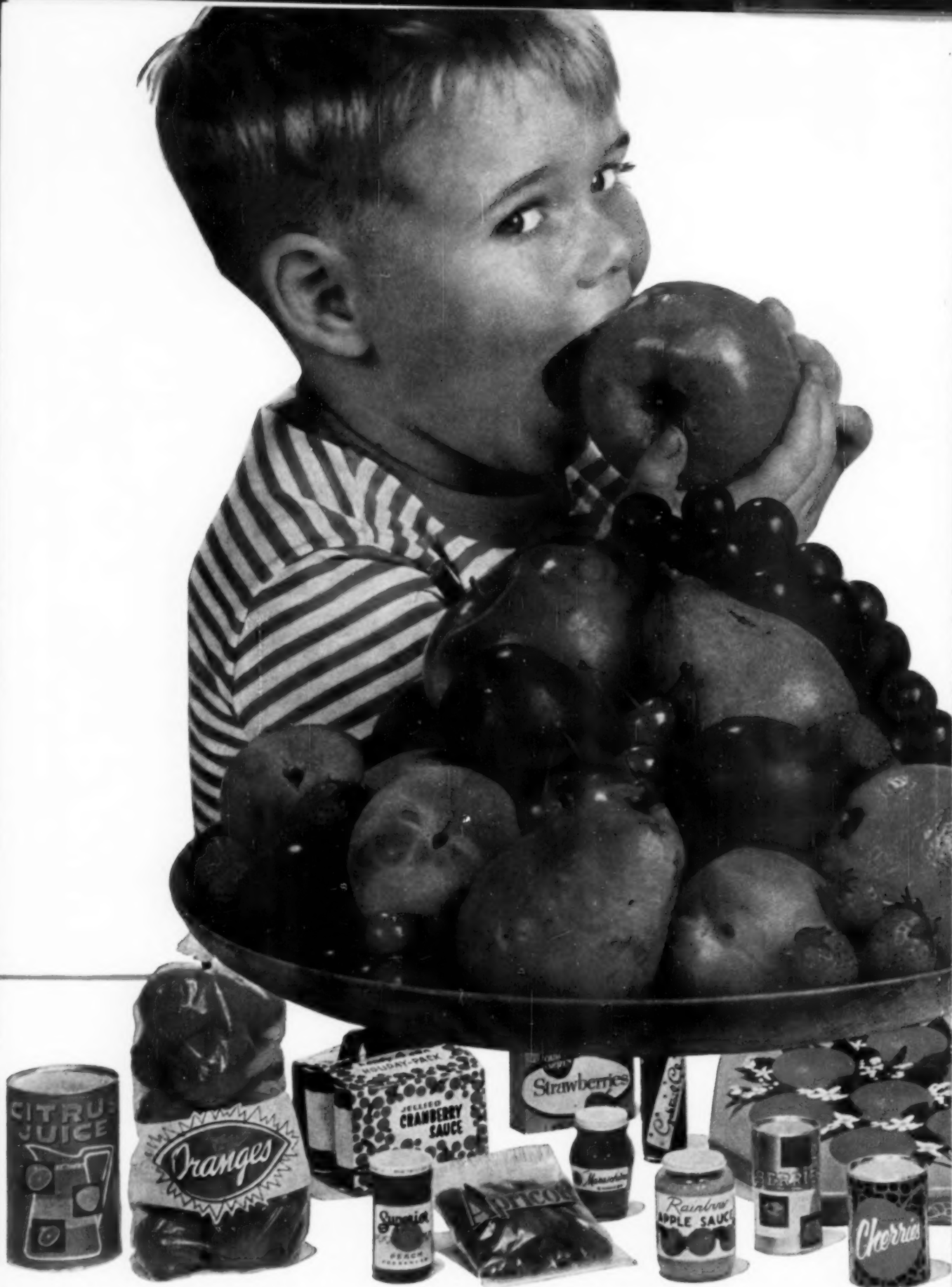
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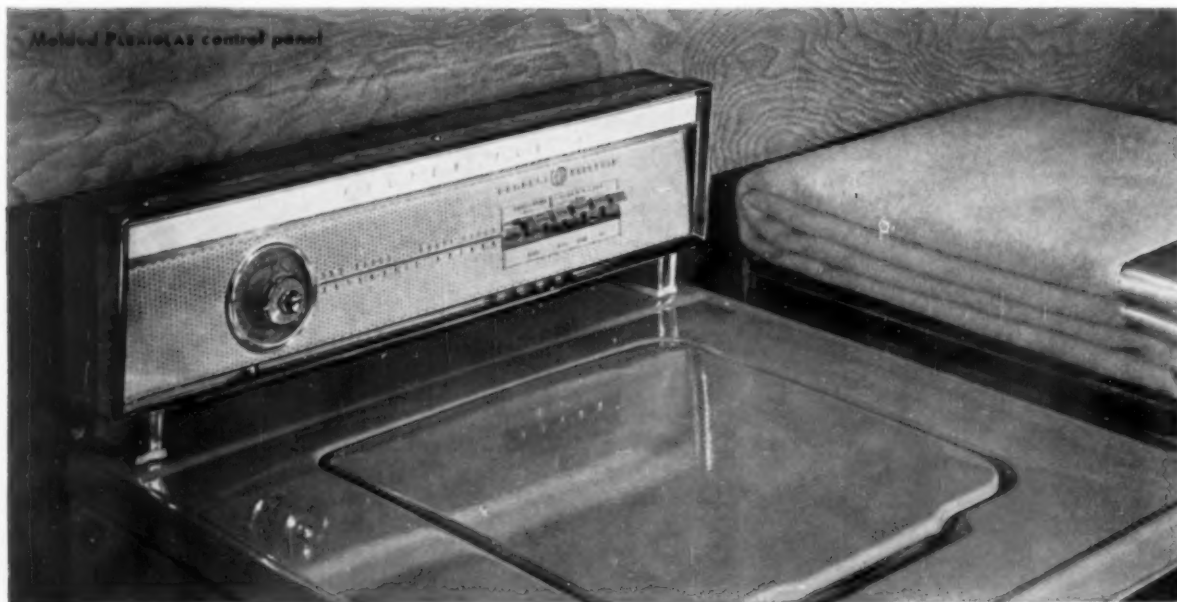
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Molded PLEXIGLAS lighting shield

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Strong, weather-resistant shields for outdoor lighting . . . colorful, gleaming control panels and decorative parts that add to the sales appeal of household appliances . . . these are typical of the widely varied applications for which PLEXIGLAS® molding powder is being used today.

This acrylic plastic has both brawn and beauty. Notable resistance to impact, weather and discoloration . . . brilliant colors or crystal clarity . . . the ability to be molded in large sections and complex shapes—these advantages can be put to work for *you*. Our design staff will be glad to consult with you.



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minimum dividends—to assure income stability to owners.

Responsibility to suppliers and distributors: For a giant company, this is a special trust. For instance, thousands of small suppliers depend largely—or even wholly—on Sears for their livelihood. To lessen the squeeze this could put on the supplier, Sears has fostered the long-term contract (reading for up to five years), giving the supplier some stability—and assuring Sears a supply.

Long-term affiliations, says Houser, bring benefits far greater than any from the shrewdest short-term bargaining. Among them: the cost and production advantages of new equipment and techniques a supplier can install with a long-term contract in his pocket.

Responsibility to the community: Increasingly, communities put the touch on business to help education, hospitals, social agencies, and the like. If business defaults, the job will go to government, Houser warns. Therefore, he urges the cooperation to contribute both (1) money, preferably in amounts to be decided at the local level, and (2) time and talent, through lending top personnel for community affairs.

Responsibility to government: Today, government is the biggest single influence on business life. Houser admonishes corporations and businessmen to take an interest in government fiscal policy—something he doesn't think the older business generation has done very much, or very well—except negatively. He hopes companies will:

- Encourage personnel to serve actively in government.
- Work from a broad view of the public good, instead of settling for a doctrinaire stand recommended by an established business group.
- Get out of the rut of being always "against" things—an attitude attributed automatically by many to business, rightly or wrongly.

Responsibilities abroad: Finally, Houser thinks, the U.S. economy can—and should—be exported, because it's both effective and profitable. What's more, it can be a weapon against Communism. The export cargo should include not only capital but also U.S. concepts of profits, mass markets, and the worker's role as a consumer. This involves a threefold task for business with the help of government and private agencies:

- To interpret essentials of U.S. economy to responsible leaders abroad.
- To try for repeal or amendment of foreign laws disadvantageous to private business and the nation itself—such as certain tax codes, stock restrictions, or arbitrary import duties.
- To help U.S. companies establish overseas subsidiaries, perhaps hand in hand with native capital, but with U.S. control to assure performance. **END**

"the competitor with adequate cash available at all times is at a distinct advantage"

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WITH the present condition of the money market, three features of COMMERCIAL CREDIT's Commercial Financing Plan become increasingly important:

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In Management

• • •

Sterling Aluminum Says Ex-Officers Accepted Payments From Suppliers

Reason for the complete changeover in top management in Sterling Aluminum, Inc., St. Charles, (Mo.) car piston producer (1956 sales: \$21 million), is now out in the open.

Last month the company president and treasurer, and two vice-presidents—holding 25% of the company's stock between them—voluntarily stepped aside, reportedly because they were all at retirement age and wanted a new management to take over.

Now, in a letter to stockholders, the company says, "Unfortunately, it has come to the attention of your entire board of directors that certain officers and employees of the company—some of whom were directors at the time and have since tendered their resignations—have been in the practice of accepting payments of money in the form of commission, from certain firms with which Sterling Aluminum has been doing business."

"Upon advice of counsel for the company that the acceptance of such payments was improper, the officers and employees who were involved offered to make restitution to the company."

Horace Duncan, the former president, freely admitted he was one of the "certain officers and employees" referred to. "All I can say at this time," he said, "is that Sterling was not hurt in any way by the matter in controversy, and that it simply was a commission arrangement with several (2) of our suppliers." "The prices Sterling paid for these parts was a fair market price, and was cheaper than we could have made them ourselves," he declared.

He and other ex-officers are still attached to the company in a "technical capacity."

• • •

Two-Company Team Breaks Up, But Pinsetters Will Still Be Made

The joint foray by Murray Corp. of America (Eljer plumbing and Easy home laundry equipment) and Brunswick-Balke-Collender Co. (bowling products), in production and sales of a bowling pinsetter was terminated last week. For Murray, which sold its interest to B-B-C, it was a diversification move that didn't pan out.

The two came together because B-B-C needed an automatic pinsetter to meet competition. B-B-C had a prototype but lacked capital to develop and produce it. Murray, seeking diversification out of the auto parts business joined in to form the jointly owned Brunswick-Murray Pinsetter Co.

Murray's job was to develop the pinsetter and then subcontract production to Otis Elevator. B-B-C's function was to sell and install the new machines, and service them (via contract with Otis).

However, coordination was a problem, so was financing. The venture lost money and Murray finally decided to bow out.

B-B-C, however, is staying with the business, plans to expand it, and claims to have a backlog of orders and hopes for black ink.

• • •

Executives Told to Rid Themselves Of Ivory Tower Research Notion

Executives who think and speak of their research people as long hairs and ivory tower dwellers, are actually locking themselves, in a tower, and tossing away the key. That's the opinion of Robert Ingersoll, head of big highly diversified Borg Warner Corp. (1956 sales: \$598-million).

Ingersoll suspects many executives tend to insulate themselves from those strange people and projects "over at the lab," and thereby lose out.

Research is costly business, says Ingersoll, and badly handled it will bleed away precious cash, time, and talent. Management should lay out clearly what it wants long-term. With this well established it mustn't hesitate to ride herd on its researchers.

What's more he says, it pays to keep researchers constantly rubbing shoulders with the production, sales, engineering, and management people.

• • •

Management Briefs

An old company with a new name: At last week's annual meeting Felt & Tarrant Mfg. Co., 70-year-old maker of comptometer calculators, assumed the name of its product, **Comptometer Corp.** and announced diversified product plans. Management also squashed an abortive proxy battle but still faces two big problems: a week-old strike for a 20¢ per hour wage increase, and two years of red ink operations.

Pressed Metal of America, Inc., the auto parts producer teetering on the edge of going out of business for the past few months (BW—Mar.27'57,p167), took a hard blow last week. Three automotive customers had given the company tentative contracts but withdrew them when the company could not guarantee it would go into production on schedule. The reason: failure to agree with the union on a new, low pay contract.

Katy, the Missouri-Kansas-Texas RR, which moved its headquarters operation from St. Louis to Dennison, Tex., almost overnight, last March, is setting up permanent headquarters there—as soon as it can raise the money. (BW—Apr.27'57,p136).

One merger went through and one fell through last week. Expansive General Telephone Corp. acquired Peninsular Telephone Co. of Tampa, Fla., via an exchange of stock. A proposed stock exchange merger between two office machine producers, Underwood Corp. and National Cash Register Co. fizzled, over the final price.

PRODUCTION

Tars Put Out to Sea In All-Plastic Boats

Craft made of glass fiber carry a higher price tag than their counterparts made of conventional materials; but the cost—and labor—of keeping them seaworthy is much less.

THE THOUGHT of the weeks of scraping, sanding, caulking, and painting involved in getting a wooden or steel craft ready for the summer has kept many a would-be sailor on dry land. But a season of sailing without all this back-breaking work and purse-straining is a prospect most yachtsmen find hard to resist.

Last year, between 30,000 and 40,000 succumbed to the tempting ads for the easy-does-it molded glass fiber boat (pictures). This year, the industry is talking in terms of 50,000.

• **Optimism**—These are heady figures for the glass fiber reinforced plastics boat people, for the industry is still young (BW—Jun. 30 '51, p54). Until 1949, few companies had had much experience with these "glass" boats. Even by 1954, production was barely off the ground. Only 12,000 were built that year, scarcely 5% of all boats built. Last year's sales upped the take to 15%.

What makes the glass fiber industry so optimistic is the fact that demand is running way ahead of production. For example, Lone Star Boat Co.—one of

the top builders—this year reports that its order books for glass boats have been closed since Mar. 15.

• **Selling Points**—Spurring this demand is the growing yen of Americans to get out onto the water—in any kind of a boat. The big selling point for glass fiber boats is their ease of maintenance:

- They do not rust, rot, nor dry out.

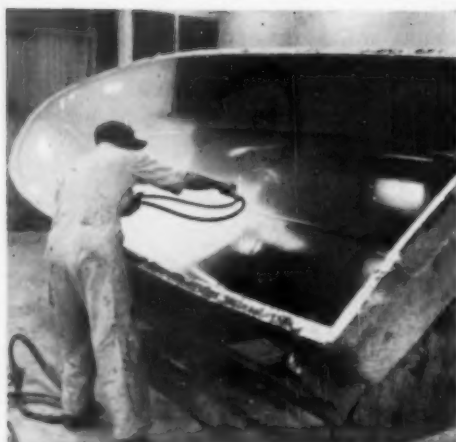
- The colors are molded in at the factory, cutting to a minimum the amount of painting needed each season.

- There are no seams to recaulk, no metal fastenings to replace.

- They are easier and cheaper to repair.

• **Strides**—Productionwise, the industry has made tremendous strides in boosting output to fill the demand. So far, it has concentrated on turning out the more popular and faster-selling boats—the outboard-powered fishing skiffs and the small runabouts ranging in size from 12 ft. to 16 ft.

However, glass fiber construction isn't limited to the lower-price craft. In the last year or so, two boats in par-



WOODEN mold, already coated with a "parting agent," is sprayed with a color.

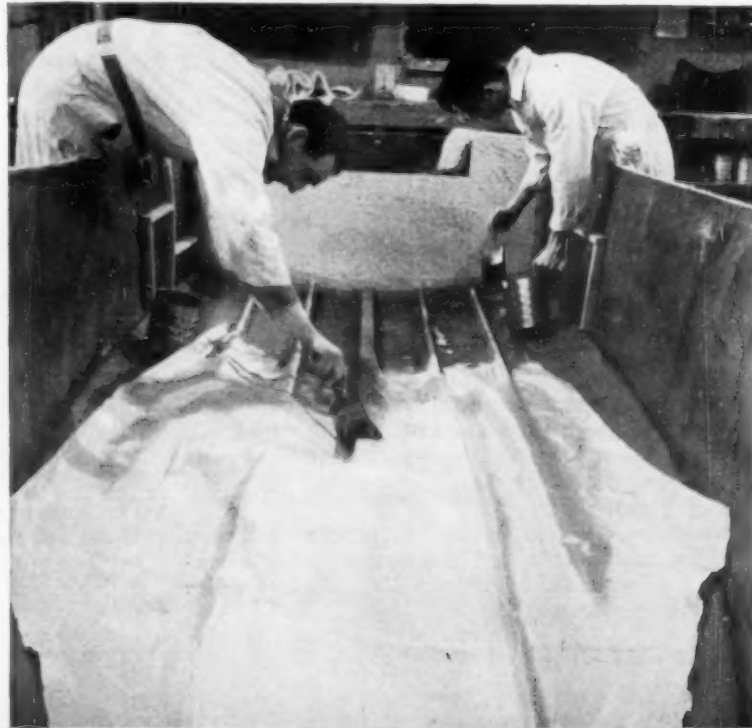


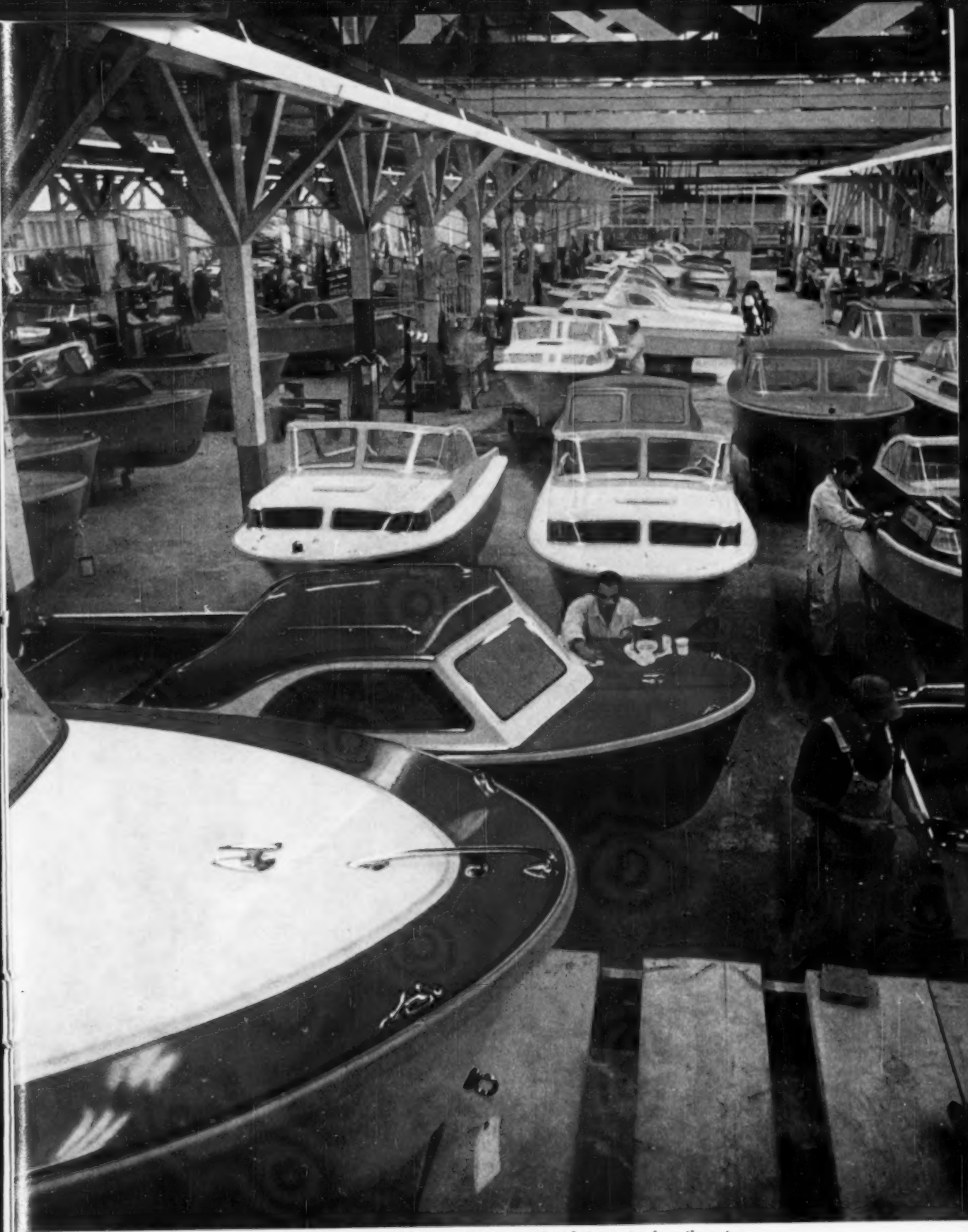
LAYERS of glass cloth are laid in, saturated with resin, then smoothed out.



HULL is removed from mold, put on an assembly line for finishing touches.

STIFFENERS are cemented to bottom to give the hull more body.





End of production line puts many-hued runabouts, hardtops, and express cruisers but one step from the water.

FOAMGLAS®

the cellular, stay-dry insulation



The moisture-proof structure of FOAMGLAS proved important in exterior corewalls of Lorillard's Greensboro plant. It permitted use of a 1/4-inch space for condensation accumulation between insula-

tion and exterior brick. Only FOAMGLAS can guarantee no loss of insulating value from moisture drainage across its surface. Architects-Engineers: Lockwood Greene Engineers, Inc., New York.

Lorillard controls cigarette-making "weather" because FOAMGLAS roof insulation stays dry!

The quality of Old Gold and Kent cigarette tobaccos depends, in part, on rigid control of the "weather" inside P. Lorillard Company's manufacturing plants. Stable temperatures of over 75°F. must be maintained with humidities in the 60% range. Inorganic, moisture-proof FOAMGLAS insulation plays an important part in that "weather" control.

Constant high humidity can ruin permeable insulations . . . completely destroy their insulating value. Expensive lost temperature control and moisture condensation problems will result. Knowing this, Lorillard engineers specified FOAMGLAS to insulate three Louisville plant roofs five years ago. The insulation provided constant, trouble-free performance on these buildings. When Lorillard's architects, Lockwood Greene Engineers, Inc., specified FOAMGLAS to insulate roof and walls of a new 13-acre plant, completed last year at Greensboro, N.C.,

Lorillard knew they were assured the same dependable insulating value.

Like Lorillard, leaders in every industry and their architects have found it pays to make FOAMGLAS top choice for dependable insulating performance . . . for industrial plants, public and commercial buildings, low temperature spaces for piping and equipment. Solve *your* insulating problems with inorganic FOAMGLAS . . . moisture-proof, strong and rigid, dimensionally stable, incombustible. Send for a free sample and directions for six simple tests to prove its benefits in your own office. Ask, too, for new building literature. Address . . .

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Because FOAMGLAS is easily cut with ordinary tools, it was quickly and economically installed on Lorillard roofs. Its unique compressive strength of 7 tons/sq. ft. made temporary catwalks unnecessary to protect it from roof traffic during or after installation. 3" FOAMGLAS was used over tobacco handling areas, 2" over office spaces.



Also manufacturers of PC Glass Blocks

ticular have caught the public's fancy and helped to spotlight the possibilities of glass fiber in larger and more specialized craft. These two boats—similar in nothing but the basic material—are:

The Bikini, a high-speed hydroplane designed by Ted Jones, who also designed some of the world's record-breaking speedboats. The Bikini is a semi-custom job produced by Bellingham Shipyards Co., Bellingham, Wash. A single-engine version costs \$9,750; twin screws raise the price to \$12,500.

The new Bounty II, a 41-ft. auxiliary sailboat that comes complete even to a glass fiber mast. It will be turned out at the rate of one a week by Coleman Boat & Plastics Co., of Sausalito, Calif., retailing for \$19,000 to \$20,000.

• **Bread and Butter**—Glamorous as these boats are, the bread-and-butter part of the business will always be supplied by the smaller boats that are coming off production lines in droves.

In the last couple of years, one after another of the glass boat manufacturers have broken loose their production lines, with Molded Fiber Glass Boat Co. of Union City, Pa., giving one of the top performances. This company turned out more than 3,000 boats in 1956—its first full year of production.

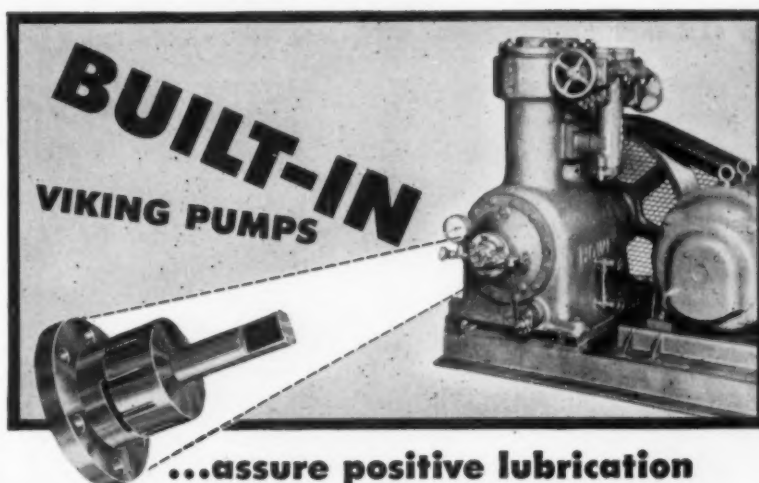
This isn't too far behind Glasspar Co. of Santa Ana, which claims to be the biggest maker of "reinforced plastic boats of the outboard type." Glasspar made nearly 4,000 boats last year, with a sales volume of just over \$2-million.

Other manufacturers that are pushing their production into the 2,000-plus range include: Crosby Aeromarine Co.; Bellingham Shipyards, Goodyear Aircraft Corp., Whitehouse Reinforced Plastics, Winner Mfg. Co., and Wizard Boats, Inc. For competitive reasons, most of these companies guard their actual production rates jealously.

• **Techniques**—Within the industry, production techniques vary almost as widely as the types of boat wanted or the size of outboard motor preferred. Some companies such as Lone Star build their boats on a highly mechanized production line. Others such as Bellingham Shipyards use production line techniques mostly in finishing.

Most of the boat builders use a single mold in which the glass fiber is laid up by hand. However, Molded Fiber Glass Boats and Goodyear use matched metal molds and stamp out boat hulls under 700-tons pressure and 230F. Mascot Plastics uses another variation of the matched mold system, in which resin is drawn through the pre-laid-up glass under vacuum.

• **Blend**—Bellingham Shipyards' operations represent a neat blend of old-time shipbuilding experience and newer-glass fiber fabricating techniques. The company's approach, moreover, is the one



Howe Ice Machine Company of Chicago, Illinois, uses built-in Viking Pumps to assure positive lubrication of compressor bearings, pistons and cylinder walls. Their system incorporates a Viking 3½ gpm rotor, head and idler into an integral casing. They are rugged pumps, serving dependably 10 to 20 years.

Used by Howe since 1921, Vikings have proved so satisfactory that other manufacturers have since used similar pumping systems. If you are using or planning equipment that could use built-in pumping, investigate Vikings. To start, see your Viking distributor, or write for bulletin series 575.

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that will probably be used by present-day builders of wooden cruisers as they switch to glass fiber.

Bellingham markets its boats under the Bell Boy label—which ranges from an 8-ft. dinghy (\$225) through the 16-ft. runabouts, hardtops, and express models (\$895-\$1,495), to a 21-ft. express with either inboard or outboard power (up to \$6,895).

Before it turned to build glass fiber boats, Bellingham followed the up and down pattern of most shipyards. During World War II and the Korean War, it built minesweepers, landing and other wartime craft. In peacetime, it built a few commercial fishing boats and pleasure cruisers, and gradually laid off men. Today, about 200 dealers around the country are selling the Bell Boy line. It still builds wooden boats, too.

• **Step by Step**—Bellingham uses the hand lay-up method to build its boats. The company starts with a female mold for a hull. The original hull is made of wood, and the important thing is that it be as smooth as glass, because the finished product will have the same smoothness as the inside of the mold.

First step is to spray a "parting agent" on the mold, to facilitate removal of the hull from the mold in the latter stages of construction.

The mold then gets a color spray—a special plastic substance called Gelkote. This coat works into the outer layer of resin in the finished hull.

This mold, containing the start of a new hull, goes back to the plant for the buildup of the actual hull. Workmen slap on a layer of polyester resin, lay in a pre-cut section of glass fiber cloth, then slap on more resin. Working quickly, they smooth out the cloth to eliminate wrinkles and air pockets.

After the first layer of cloth has been laid up, the hull is left to dry. (Half a hull is done at a time. The mold tips on its axis to make it easy to lay up the side being worked on.) Later, the mold is tipped on its other side. Where the two sections come together, the cloth is overlapped to provide stiffening and additional strength.

When the first layer is dry, a layer of glass fiber is laid in, just as the cloth was. The mat, of a feltlike consistency, gives body to the hull. The mat is soaked in resin, smoothed out, and left to dry and harden.

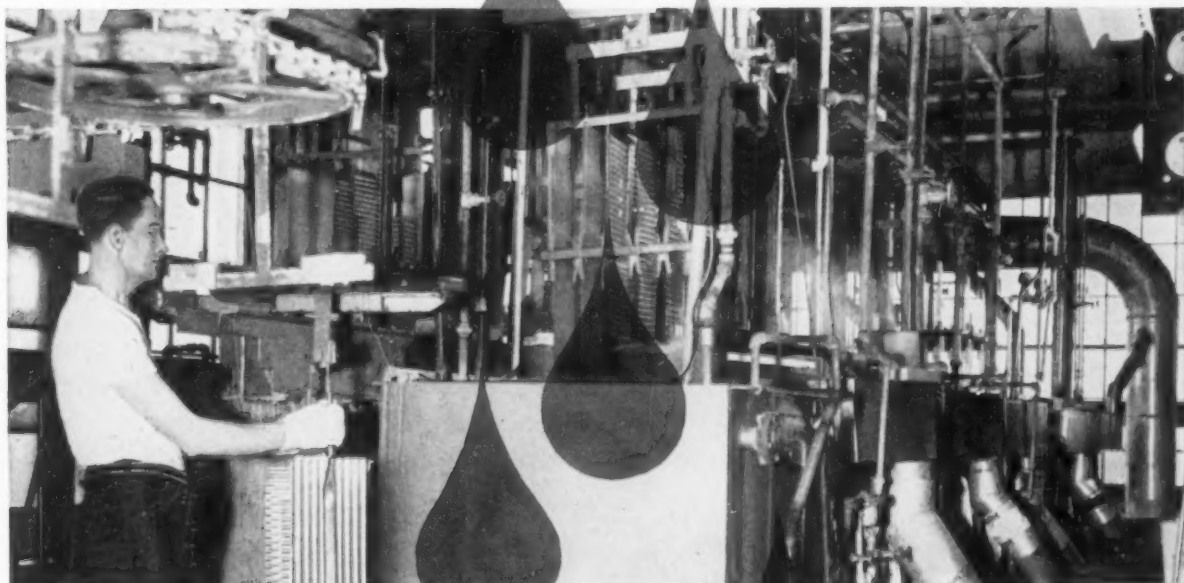
Finally, another layer of glass cloth is laid in and the hull is ready to be sprung from the mold—after it has cooled down from the heat created by the hardening reaction.

The complete hull is then sandpapered where needed, and the overlaps of glass fiber cloth and resin trimmed off. It is then ready to move down the final assembly line—hulls of the same size are going down the same line. Here one-piece deck and cabin

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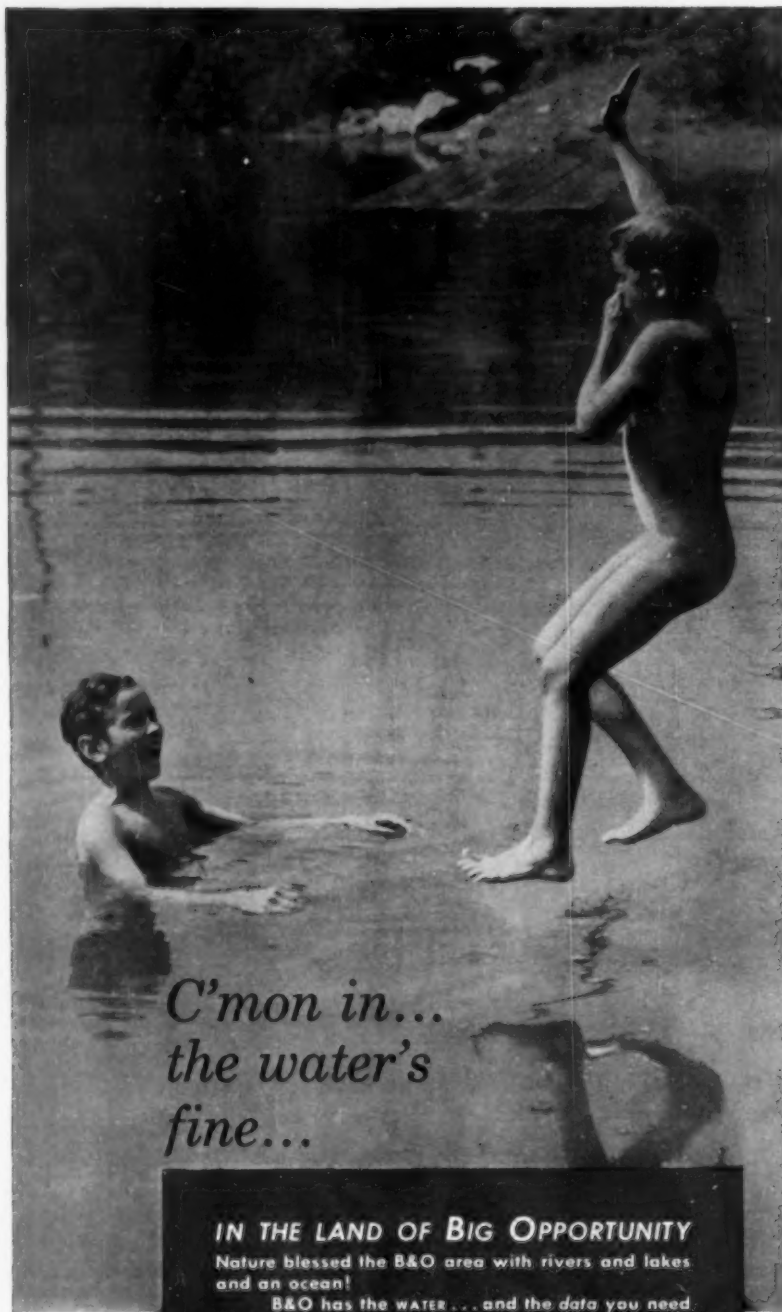
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tops, deck hardware, fittings, lights, and other equipment are set in.

In the beginning, one of Bellingham's big problems centered around resins—how much hardening time to build into the resins, for example.

• **Advantages**—One big advantage to using glass fiber is that it lends itself to large-volume operations. Unlike wood, steel, or aluminum, most of the cost is in the basic material, and in the mold. The actual cost of fabricating glass fiber boats is low. One reason is that the operation requires few workers, and few skilled men. For example, two Bellingham workers can turn out a complete hull every four hours.

Despite this, most glass fiber boats are not cheaper than those made of conventional materials—in the smaller sizes they cost about 10% more. However, this cost differential may soon disappear. L. J. Neiger, president of Glasspar, says his company can now make boats to compete pricewise with those of other materials. This is coming about because of the demand for larger boats and larger motors. Building these strongly reinforced boats takes comparatively more labor, Neiger says, and labor cost is where glass fiber construction catches up.

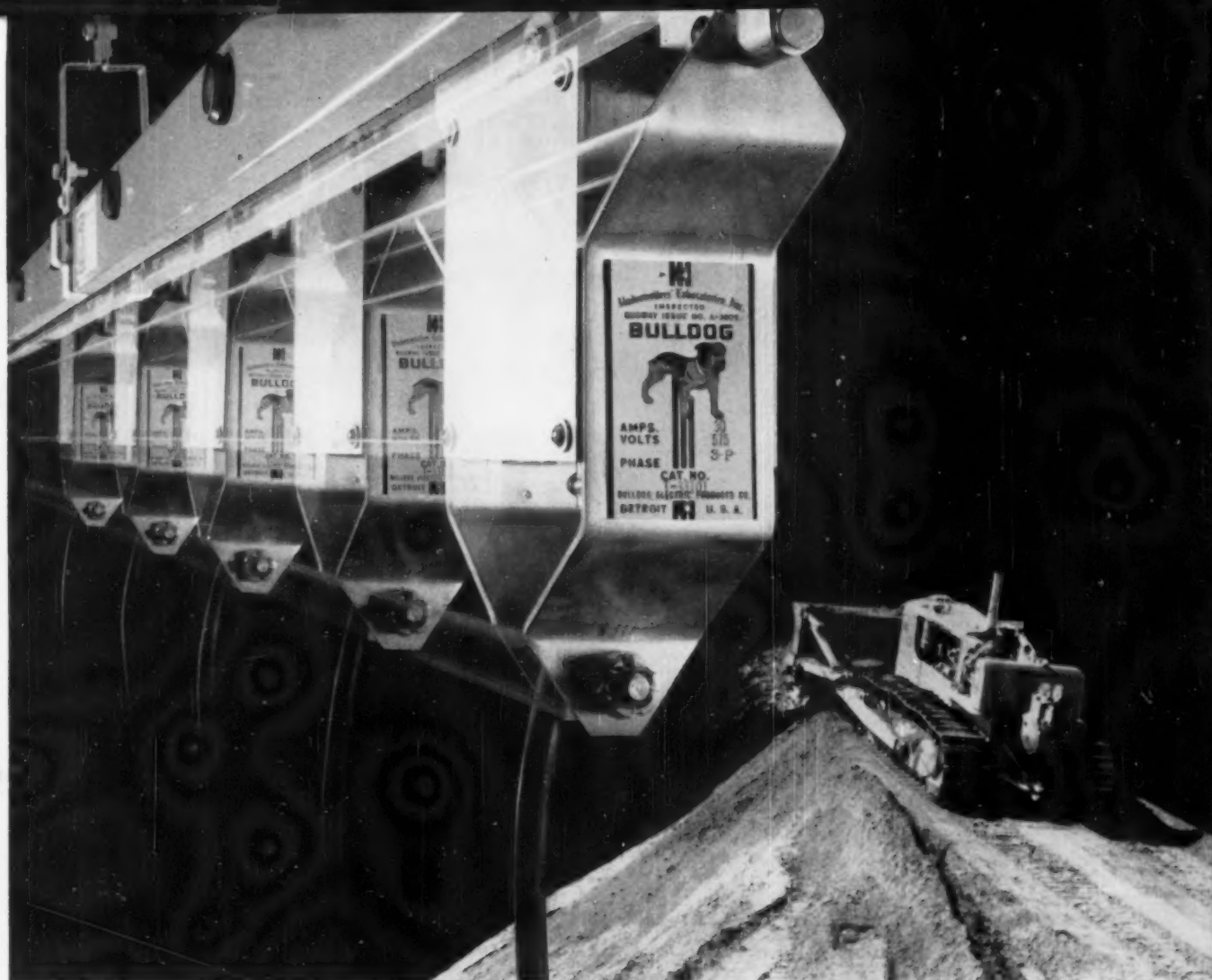
About the biggest motor cruisers actually built and operating—not counting naval craft—are the 27-ft. Crystaliner Cruiser class, built by Crystaliner Corp., Newport Beach, Calif., and Anchorage's 29-ft. twin-screw cruiser class. It is turned out at Warren, R. I.

Glass fiber has another advantage in that it can be readily molded into the complex curves most sailboats demand. For this reason, glass sailboats tend to undersell their wooden counterparts—the Bounty II costs about half that of a comparable wooden sailboat.

• **More Roadblocks**—Despite this rosy outlook, the industry hasn't hurdled all the roadblocks in its drive to capture more of the boat-building industry.

E. L. Goodwin, president of Cape Cod Shipbuilding Co., Wareham, Mass.—an old yard that is now leaning heavily on glass fiber for sailboats, outboard cruisers—says that the tremendous demand for any kind of boat actually works against glass fiber. He points out that most of the established companies in the cruiser field (20 ft. to 50 ft.) also are working to capacity and selling everything. Under these conditions, there is no reason for a yard to shift to glass fiber, unless the competition gets tough. Changeover would mean learning a new business, training new personnel, revamping the plant.

On the other hand, Ray Greene of Ray Greene & Co., Toledo, Ohio—another top producer of glass sailboats—says that his company finds that once a man has owned a glass fiber boat, he's through with everything else. **END**



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TECHNICAL PAPERS FOR INDUSTRY



REMOTE RECORDERS in Niagara Mohawk Power Corp.'s downtown Buffalo headquarters monitor controls at power station. Controls system is made by Brown Instruments.

One Sale in 10 Years

It can make a manufacturer happy if it means breaking into a new and fast-growing field. That's how Brown Instruments feels about its automatic power controls system.

Is a decade of hard work and no profit too high a price to pay for invading a promising new market? Minneapolis-Honeywell Regulator Co. is on the point of finding out. Its Brown Instruments Div. is completing installation of electric generator and distribution controls for the first buyer of its new control system.

Brown's engineers are putting the finishing touches on a new type of load and frequency control system that will regulate the generators in Niagara Mohawk Power Corp.'s largest plant, the 756,000-kw. Huntley Station, a steam power plant in Buffalo. The system is already operating six generators, and results are said to be good. Controls for additional generators and another power house are now nearly installed.

• **Selling a System**—Brown Instruments is well established as a maker of automatic controls for the petroleum, chemical, and steel industries. It has long sold recorders, meters, and gauges for electric power control systems assembled by other companies.

Ten years ago, Henry F. Dever, Minneapolis-Honeywell vice-president in charge of Brown Instruments, and his staff studied this branch of the business. Figures on sales of control equipment to utilities showed that Brown was getting a smaller share of the business

than it ought to be able to count on.

"It was obvious," says Dever, "that we couldn't improve our position much by simply selling components. We had to do the same thing some of our competitors were doing—design and sell complete control systems."

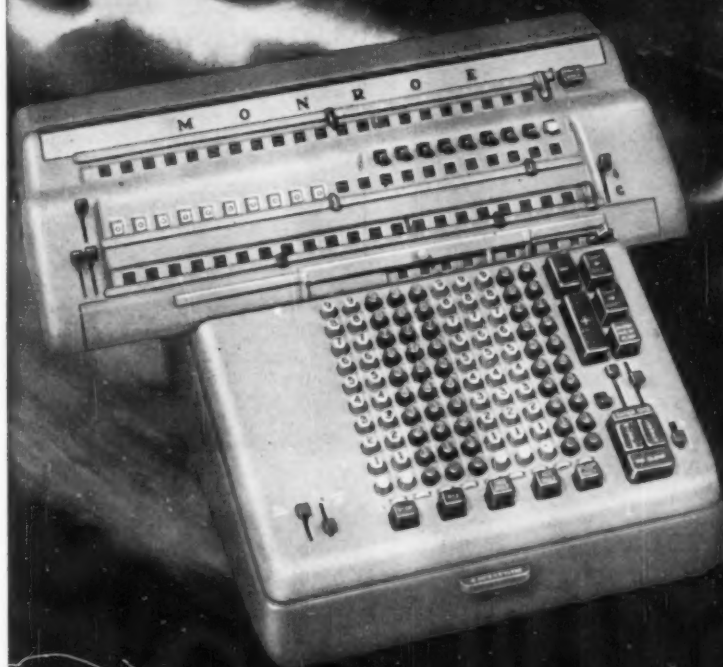
• **Long Development**—This took time. For seven years, engineering development costs piled up without any orders for business. Then Niagara Mohawk ordered the system for Huntley Station. The power company's satisfaction with the completed portion of the system augur that the next customer will come more easily than the first.

"We're more certain than ever that the market for this equipment will be a tremendous one," says Dever. "And we're convinced we can make significant technological contributions and win a good share of the market. We don't spend more than a quarter of a million dollars without expecting it to pay off."

• **New Features**—Brown Instruments Div. has incorporated some innovations in its system, such as all-electronic telemetering and controlling and use of solid-state components (transistors, rectifiers, and magnetic amplifiers) at every possible point.

The system also claims cost advantages: its use of standard components as building-blocks, the fast and foolproof

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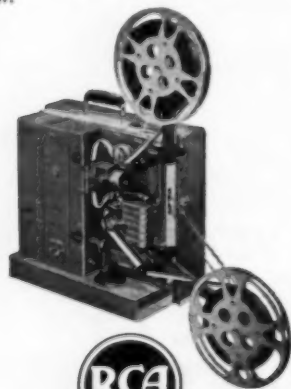
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HENRY F. DEVER, head of Brown Instruments, sees big growth in controls field.

maintenance that comes from use of plug-in modules, and a telemetering setup that operates over teletypewriter lines at \$1 per mile per month instead of telephone lines at \$3.60.

Other utilities will be watching the operation of this system, which is said to undercut competing prices. If it performs as advertised, Brown Instruments can win several million dollars' worth of annual sales a few years from now.

• **Exclusive Market**—In most industrial fields, a record of a single sale in 10 years in a new venture would be read as a warning to crawl back under cover of the original business. But the power generation field is different. It is narrow, and tough to crack.

Automatic system controls for loading the generators in power stations are complex but must be foolproof. Utilities are notably conservative about buying any equipment from newcomers. Once a new item has been thoroughly tested and shown to have advantages, however, electric power companies are as ready as anyone to welcome the salesman.

When Dever talks of competitors in the control system field, he is speaking chiefly of Leeds & Northrup Co., one of Brown's Philadelphia neighbors. According to one industry source, Leeds & Northrup has installed more than 300 of the 330 system load and frequency controls in operation. The rest of the business is credited to General Electric Co. and Westinghouse Electric Corp.

• **Growing Volume**—These automatic systems are relatively costly—from \$100,000 to \$250,000 apiece, according to Leeds & Northrup. Their job is to detect the first tiny change in customer's demand for electricity and, faster and more accurately than a man could

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"... every power company has its own idea of what system load controls should do . . ."

STORY starts on p. 116

do it, to adjust the generator output to anticipate the new load. The system distributes the load among the generators for the greatest operating economy.

Such controls are more important than ever these days when utilities tend to interconnect their systems. Their purpose—to share the benefits of pooling their most efficient power units—would be thwarted if the switching of load from one distribution grid to another is slow or imprecise.

According to Leeds & Northrup, only about \$700,000 worth of control systems were sold in 1947, compared with \$3.2-million worth last year. Since automatic load controls were developed more than 20 years ago, another source says \$40-million or \$50-million worth have been installed. Many in the trade predict that nearly all new power stations from now on will be automatically controlled, and that many older installations will have to add automatic controls to stay competitive.

• **Custom Tailoring**—Selling the whole system instead of the separate components has its rewards, but it calls for costly custom engineering, too. Generating control problems vary from utility to utility. Some require controls that run only one or two generators in small stations. Others, such as Niagara Mohawk, want centralized setups that program the total output of whole families of generators in more than one powerhouse. The Brown system control will operate six generators in one station and two in another, for example.

"Every power company has its own idea of what its load controls should do," a utility man says. That's one reason why it took Brown Instruments so long to break into the business.

At the start, Brown had only one clear pattern of specifications—those for government power plants. It built a prototype load control system for a small hydroelectric plant operated by the Army Engineers.

"That gave us valuable experience," Dever recalls. "It also taught us how we had to simplify our equipment to make it useful to the utilities."

The Niagara Mohawk installation has called for on-the-spot custom engineering on a scale Brown Instruments doesn't expect to have to match after this. With a tried and proven system using standard components as building blocks, the company hopes to have a product that many utilities can buy without much need for tailoring. **END**

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Dining a la Radar

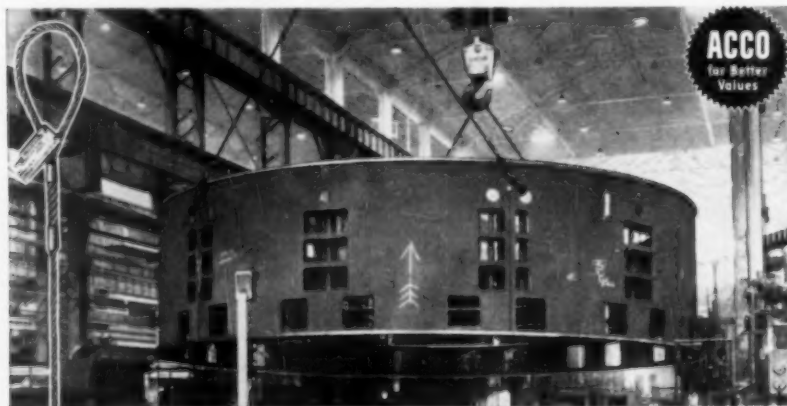
A new method of preserving food, by using radar microwaves, had the food industry talking this week. The process is still in the laboratory stage, but if it pans out it will be possible to store such delicacies as lobster tails, breast of chicken, and strawberries in dry form, on the shelves indefinitely, without any loss of flavor, color, or form.

The Pittsburgh convention of the Institute of Food Technologists heard about the process from Dr. David Copson, of the food lab at Raytheon Mfg. Co. Here's how the process works:

Meat, fish, fruits or vegetables—cooked or uncooked—are frozen under vacuum. They're bombarded with microwave energy, such as is given off by radar. The microwaves penetrate the dry food particles and vaporize the ice. In conventional dry-freezing, it takes high surface heat to penetrate the dry food particles and so achieve dehydration all the way through. This heat can damage the particles and impair flavor.

• **Shape Retained**—In the Raytheon process, the item frozen retains its original shape. But, since most foods are 70% to 95% water, it loses a great deal of its weight. When the food is to be eaten, it is simply placed in water for a few minutes. After this, it both tastes and looks about as it did before the freezing.

At present, the process is too expensive to be commercially practicable. But if costs could be brought down a bit by volume production of the equipment, it could be of great value for big-scale food processing for the armed services. The process would make possible a field ration that was lighter to carry and better tasting. And, refrigeration storage costs would be brought down. **END**



Your Most Important Production Operation

...may be lifting your finished product, or a major assembly. A dropped load can result in serious losses from wasted materials and labor...damaged production equipment...disrupted delivery schedules.

The man in your plant in charge of lifting operations has a heavy responsibility. It is good management to provide him with the best

possible tools for his job.

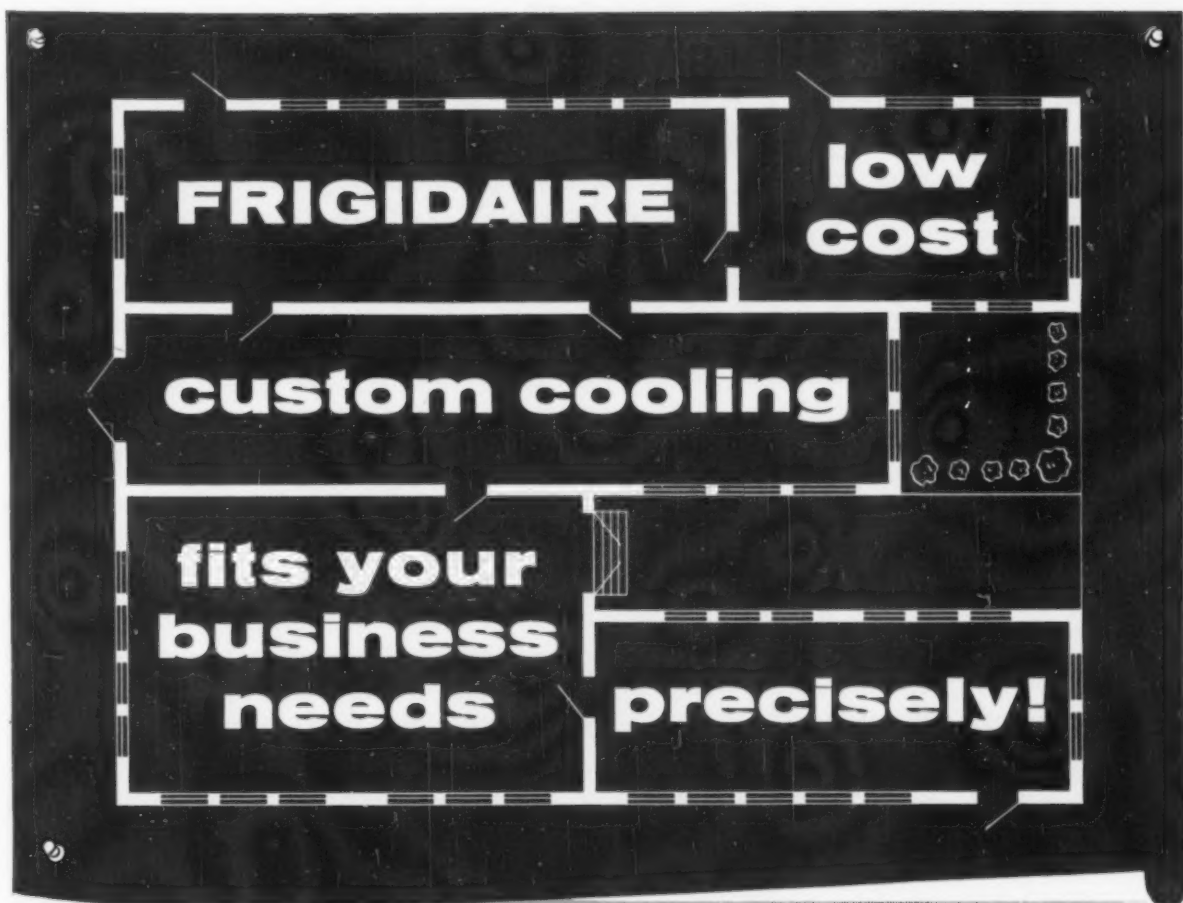
The slings he uses are vitally important. The safest slings made are ACCO Registered Wire Rope Slings. Each is precision made and pre-tested at twice its working load before leaving the factory.

To protect your production line, call your nearby ACCO Registered Wire Rope Sling distributor.

Write for Booklet: American Chain & Cable Company, Inc., Wilkes-Barre, Pa.
In Canada: Dominion Chain Company, Ltd., Niagara Falls, Ontario

ACCO Registered® Wire Rope Slings





Let your Frigidaire Custom Cooling man show you how—and for how little!



Compact, easily installed packaged conditioners

Attractive ceiling-type units



Room conditioners

Why adapt your business air conditioning needs to an old-fashioned, inflexible air conditioning system? Why, indeed, when you can have Frigidaire low cost custom cooling adapted expressly to your type of business, your cooling load and available space?

What's good for your business neighbors may be all wrong for you in performance and cost. Ask your Frigidaire Air Conditioning Dealer. He may recommend a self-contained unit or a strategically located cooling coil and blower with a completely remote air- or water-cooled condensing

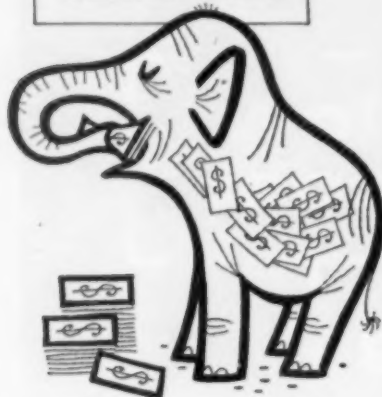
unit. He may even suggest one or more full capacity Frigidaire room conditioners to do the job.

Whichever Frigidaire system is right for you, your dealer will quickly know. No obligation for a survey. And when you own Frigidaire custom cooling, you don't have to be an air conditioning engineer to know your system meets the *top* of the standards you set for everything you use in your business.

See the Yellow Pages, or write FRIGIDAIRE DIVISION, General Motors Corporation, Dayton 1, Ohio.



TUBEXPERIENCE IN ACTION



You may own a WHITE ELEPHANT and not know it

If your firm carries an inventory of all the small tubing sizes and analyses you need for production, you may well be the unhappy owner of a white elephant. He lives in your warehouse, greedily devouring your firm's money in the form of (1) interest on capital invested in your tubing inventory; (2) cost of the storage space itself; (3) insurance costs; (4) inventory taxes; and (5) handling and processing costs on your tubing inventory.

Your nearest Superior Tube distributor can be your warehouse, carrying your inventory and supplying tubing promptly on order. He can act as your assistant PA by advising you how and when to buy to get the most for your money and often give you helpful information on technical tubing problems. He can furnish Superior small tubing in 121 analyses, and in a wide range of shapes and sizes. He also handles many other metal products.

In return, your firm can forget such warehousing costs as light, heat, watchman service, depreciation, inventory tax, scrap, waste and obsolescence. With less floor space tied up, your plant produces a greater profit per square foot.

Call in a Superior Tube distributor. Unload your warehouse white elephant on him. He'll pay you for it with efficient service and expert advice. Superior Tube Company, 2009 Germantown Ave., Norristown, Pa.

Superior Tube

The big name in small tubing
NORRISTOWN, PA.

All analyses .010 in. to 1/2 in. O.D.—
certain analyses in light walls up to 2 1/2 in. O.D.

West Coast: Pacific Tube Company
5710 Smithway St., Los Angeles 22, Calif. • RAYmond 3-1331

NEW PRODUCTS



Pike's Peak-or-Bust Crowd . . .



...Roughs It in New Luxury Bus

This outsized bus with the accordion pleats in the middle is practically the last word in luxury. It features hostess service, light refreshments, rest room, music, free magazines, and pillows for the passengers. Despite its jumbo size, it's more maneuverable than most standard buses.

The new bus is being used by Continental Trailways Bus System on its scenic 113-mile Pike's Peak route. It was developed and built by Kassbohrer, Karl, Fahrzeugwerke, GbmH., Ulm, Germany, which also designed and built Continental's Golden Eagle series (BW-Sep.29'56,p136). Continental christened the new coach the Academy Express because it stops at the U.S. Air Force Academy on its Denver-Pueblo run.

• **Big But Agile**—The jointed coach is 60 ft. long and seats 64 passengers, com-

pared with 41 for Continental's older coaches. Yet the inside turning radius of the new 10-wheeler is less than 40 ft. because it has a steering unit in the front and rear of the bus; the average for standard 35-ft. buses is 60 ft. And the high-tensile steel and aluminum construction cuts the weight of the new coach to about the same as a 40-footer.

Tinted glass on the outside sections of the roof make sightseeing easy and pleasant. The refreshment bar, hostess seat, and other passenger serving facilities are located in the accordion pleated section. The rest room is in the rear of the second section. Each passenger seat is equipped with a reading light and an ash tray. An illuminated clock, altimeter, and thermometer are mounted where passengers can see them easily.

The Academy Express was shipped

New Air-Van Service moves houseful of furniture coast to coast—overnight!



United Air Lines and North American Van Lines team up to provide a fast, new service for "executives on the move."

Executives transferred to key cities in the U. S. and overseas can be moved lock, stock and barrel without waiting, worry or the expenses of hotel living. New, unique Air-Van Service combines the finest features of North American Van Lines and United Air Lines Air Freight.

Expert handling. North American Van Lines personnel take over the complete job of packing. Every piece is individually prepared for shipment.

Special containers. New-type Air-Van units hold up to 1200 lbs. each, travel door to door as a sealed unit.

Newest cargo planes. Giant, 300-mph DC-6A Cargoliners operate on regular overnight schedules between 12 major terminals on United Air Lines' 14,000-mile route, serve the main international gateway cities on the East and West coasts.

Reserved Air Freight guarantees that space will be available for an Air-Van shipment on a DC-6A Cargoliner leaving that night.

Next-day delivery in many areas of U. S. Air-Van Service usually means that furniture is delivered and unpacked by the time the family arrives.

Typical Air-Van Door-to-Door Rates for 4 Rooms

PHILADELPHIA to DETROIT	\$628
BOSTON to CLEVELAND	\$644
NEWARK to CHICAGO	\$702
LOS ANGELES to CHICAGO	\$1038
NEW YORK to SAN FRANCISCO	\$1306

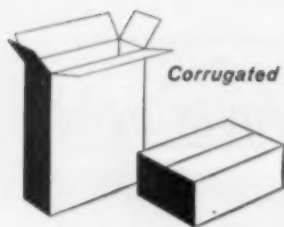
Rates shown are for information only, are subject to change, and do not include the 3% federal tax on domestic Air Freight shipments.

Door-to-door service

SHIP FAST...SHIP SURE...SHIP EASY

For service, information, or free Air-Van estimate, call the nearest North American Van Lines or United Air Lines representative, or write Cargo Sales Division, United Air Lines, Chicago 3, Ill.





Corrugated Fibre Boxes



Corrugated Paper Products



In shipping container quality ...

PEOPLE ARE PLENTY IMPORTANT, TOO

Sure, we have modern plants, mills and machinery. We have integrated operations. We have pushbuttons and automation.

But there's craftsmanship involved in the making of quality corrugated containers. It takes people.

We think ours are pretty special. They're steeped in container experience (that's been Fort Wayne's sole function for nearly half a century). They're trained, skilled, knowing, with all their abilities concentrated on the development and manufacture of one superior product.

They're important, plenty—to your shipping container.



Fort Wayne

CORRUGATED PAPER COMPANY

GENERAL OFFICES
FORT WAYNE 1, INDIANA



49th
YEAR

from Antwerp, Belgium, to Houston, Tex. From Houston it was driven to Denver. It cost Continental approximately \$50,000.



Heading Two Ways

Moving semi-trailers around congested truck terminal loading areas is a difficult job using conventional truck tractors. They've poor mobility in tight spaces, visibility to the rear is poor, and connecting and disconnecting the trailer is complicated. The unusual vehicle shown above, developed by Four Wheel Drive Auto Co., of Clintonville, Wis., is designed to overcome these problems.

The cab, which is offset to the left of the 165-hp. motor, has a window in the rear so that the driver can see down the side of the trailer. It's equipped with two sets of accelerator and air brake pedals and a swivel seat. When the vehicle is going forward, the driver uses one set of controls. When he goes in reverse he swivels the seat around the steering column and uses the other set of controls.

The steering wheel controls the front wheels of the vehicle, and a lever on the steering column controls the rear wheels so that the added mobility of simultaneous front and rear wheel steering is possible. A simplified hydraulic fifth wheel, which eliminates hand-cranking of dolly wheels, along with a small platform on the cab from which he can make air hose connections lets the operator connect and disconnect trailers without getting down on the ground.

Four Wheel Drive developed the vehicle after extensive study of the need for better trailer maneuvering in terminal areas.

The three speed forward and reverse torque transmission vehicle is called a Trailer Spotter. It costs \$13,000. **END**



...engineered in their "language"

Currently under installation in South Korea is a project which splendidly illustrates America's ability to help other free peoples help themselves.

When our armed forces entered that country in 1950, they found a most primitive, inefficient telephone system. With war ended, and the nation's expressed desire to stay free and self-sufficient, a modern method of communication became imperative.

Hence, from the United States' Korean Civil Assistance Command, the order to give to South Korea Stromberg-Carlson's modern telephone service. This will become a reality in the near future—when the country will be linked, from Seoul to Pusan, with central offices and inter-connecting lines covering this land's varied and difficult terrain.

There'll be thousands of telephones—hundreds of switchboards—miles of poles and wires. The system is manually operated, since dialing is unfamiliar to the population.

And wherever rugged mountains and impassable streams interfere, there will be wire-line *Carrier*. By this electronic magic, dozens of separate electrical circuits are impressed on wire, so that many parties can converse at the same time without the expense or trouble of stringing countless extra lines.

Any company would be proud to have a part in such a project. We're especially gratified to have been awarded this U. S. Army Signal Corps contract. Such jobs, done with precision, are the sort of challenges on which we have grown. *"There is nothing finer than a Stromberg-Carlson"*



STROMBERG-CARLSON COMPANY

A DIVISION OF GENERAL DYNAMICS CORPORATION

General Offices and Factories at Rochester, N. Y.—West Coast plants at San Diego and Los Angeles, Calif.



*"We lift the box—
not the furnace!"*



Lennox Industries, Inc.,
eliminates heavy lifting in
packaging by placing lightweight
H&D corrugated boxes around
warm air furnaces. Cuts shipping
costs, too. Heavy product?
Better see H&D.



HINDE & DAUCH

Subsidiary of West Virginia Pulp and Paper Company

AUTHORITY ON PACKAGING • SANDUSKY, OHIO •
14 FACTORIES • 42 SALES OFFICES

New Anti-Rot Chemical

A low-cost chemical to preserve and change the properties of cotton fabrics and paper has been developed by Tee-Pak, Inc., of Chicago. The chemical can be used for about 4¢ per yd.

The preservative is expected to make cotton products virtually rot- and mold-proof, keep paper from oxidizing, and make it a better dielectric for insulation. A treated fabric can be washed or dry-cleaned without losing its protective quality, and repeated treatment with the chemical can increase fabric weight up to 150%.

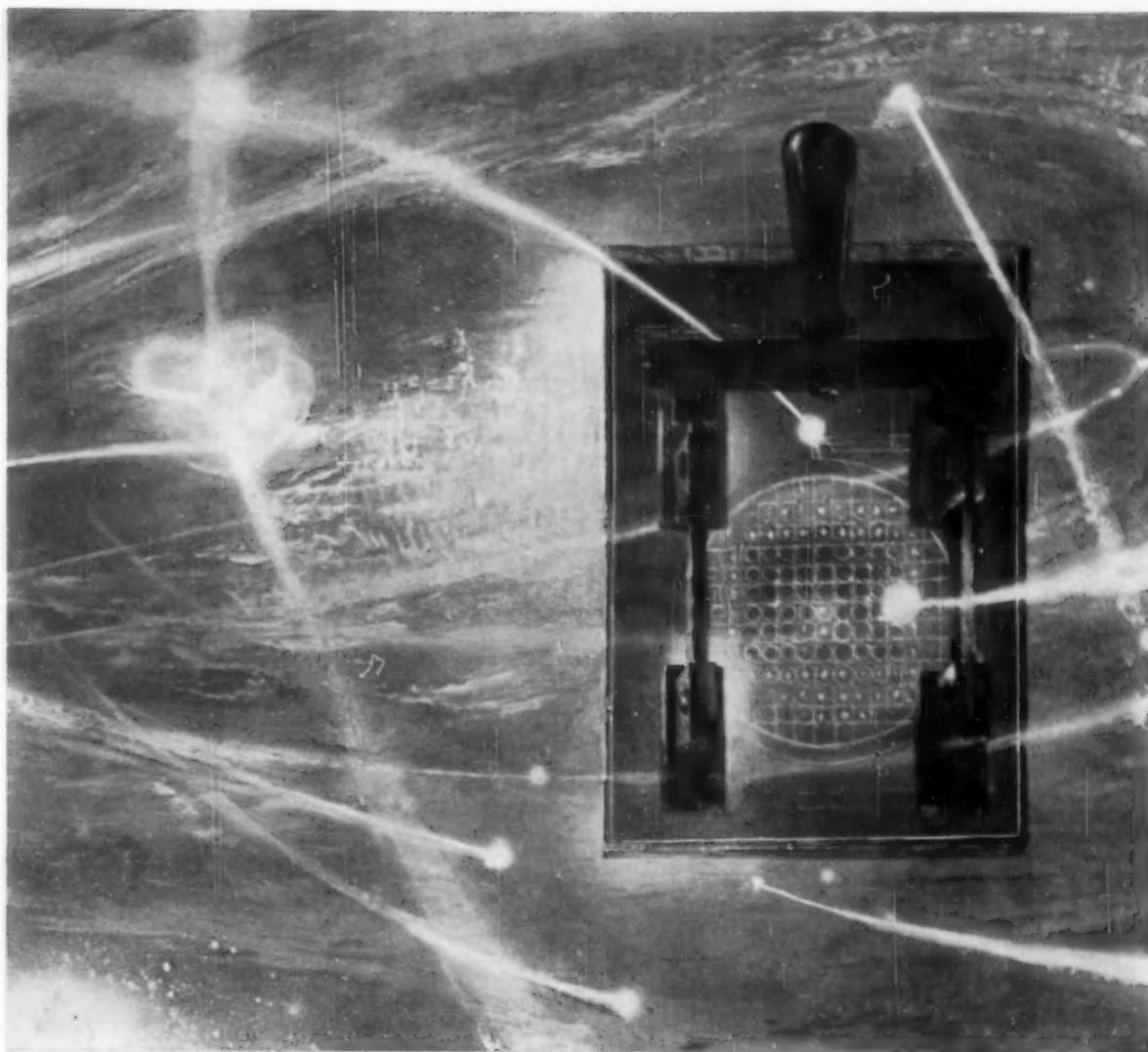
At present, it's being used to treat shoe stitching—which is usually the first part of the shoe to rot out. It is also used to control the amount of ink different papers will take, and prevent them from yellowing. Future uses may include prevention of rot in military uniforms, tents, hotel linens, and rope. Tee-Pak is a manufacturer of meat casings and cellulose products. It plans to license the new preserving process.

NEW PRODUCTS BRIEFS

A cylindrical calculator with greater accuracy than any slide rule currently on the market is being manufactured by Arthur F. Smith Co., Rochester, N. Y. The greater accuracy is achieved by spiraling the scales around a tube instead of in a straight line, which gives the tubular rule as many graduations as a 66-in. slide rule. It can be used to solve problems of multiplication, division, proportion, percentages, logarithms, roots, and powers. It costs \$19.95.

A portable winch that can be powered by a car battery is useful for dragging a car out of the mud, hauling a boat out of the water, tightening a fence, or hanging an elk. Because the winch isn't stationary, it can be used for any job around the car that is within reach of the battery power source. It's manufactured by Blue Anchor Winch Co., Klamath Falls, Ore. It costs \$149.50 in the 6-v. model and \$159.50 in the 12-v. model.

A TV camera so sensitive that it receives as clear an image from the light of an ordinary match as a man with 20/20 vision does from a 150-watt bulb has been built by Admiral Corp., Chicago, for the Navy Bureau of Aeronautics. The Navy uses it for underwater, land, and air reconnaissance and in conjunction with a television monitor. It is not now available for civilian use.



The swirling pattern of atomic particles disrupted from their normal orbits, detailed drawings for an atomic reactor, a simple power switch—thus does Stanley Meltzoff tell the story of atomic energy as it is harnessed to serve and benefit the industries of the nation.

For over 70 years United Engineers has been a leader in the design and construction of power plants of every type. A natural development of this standing was entrance into the atomic power field. Our experienced staff now offers full services on all problems and projects in this category—preliminary studies and reports, including the evaluation of size, type and design of reactors; economic and hazard studies and plant location surveys; conceptual design; detailed engineering and design; and atomic power plant construction.

No matter what your project—power plant or chemical plant, gas plant or pipeline, steel mill or industrial building—United Engineers has the skills and creative ability to augment the engineering staff of your own organization. Best proof of our skills and ability lies in our record of assignments from clients previously served.

Our background of more than 70 years' experience as designers, construction engineers, and consultants is your assurance of getting the maximum for each dollar expended.

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Our list of clients includes many of the nation's forward-thinking industries and utilities





Gasoline keeps us all on the go

A tankful is a ticket to high adventure or hard work. Gasoline keeps us all on the go. Pleasure boating. Driving. Ploughing. Turning work engines, and moving motors that save work.

The companies which prospect for petroleum and refine gasoline are large, small and numerous. Competition among them creates better fuels, lubricants and by-products.

Much money and many financial services are necessary to make this possible.

America's commercial banks help provide both.

The Chase Manhattan Bank of New York is proud to be a part of this banking system that helps keep the nation strong, the economy free.

THE
CHASE
MANHATTAN
BANK

MEMBER FEDERAL DEPOSIT INSURANCE CORP.



York Air Conditioning provides the kind of comfort that draws crowds in every type of business—from the biggest supermarket to the smallest cafe. York Self-Contained units may be installed singly or in multiple without closing down your business or tying-up valuable space.

Choice of air or water-cooled models from 3 H.P. through 22½ H.P. to fit your needs. *If you're building new*, one of the many fine York *central* systems can assure you of getting a full share of the business potential in your market area.

ARE YOU GETTING YOUR SHARE?

Are you completely satisfied with the traffic and sales your store is enjoying? Really happy with the size of meal checks in your restaurant ...rents and occupancy in the buildings you own? Today, air conditioning and refrigeration can make the difference between average business and really good business with a correspondingly larger profit.

You can be sure of getting your full share of business with York products specifically designed to give you carefree, trouble-free air conditioning, ice making and refrigeration. You'll be surprised at how little it costs to install York quality. You'll be gratified at how little it costs to operate and maintain this truly outstanding equipment over the years. Why not contact your York dealer today for bigger and better business tomorrow.



York Condensing Units provide perfect refrigeration for low temperature cabinets and walk-in coolers. Backed by 5-Year Protection Plan on hermetically sealed compressors.



York "Snorkel" Room Air Conditioners are helping thousands of offices modernize the easy way. Because not one inch juts outside the window, the Snorkel conforms to most building law restrictions.



Yorkice Ice Makers deliver from 200 to 8,000 lbs. of ice per day for only pennies. Four kinds of ice for every serving and preserving need. Choice of machines that make the

new exclusive York Icelets...or other Yorkice Ice Makers that make cubes, Thinice, or crushed ice.

the quality name in air conditioning and refrigeration



YORK CORPORATION, York, Pa., Subsidiary of Borg-Warner Corporation

In Washington

• • •

Goodrich Denies Justice Dept. Charge Of Private Research on Federal Grant

The Justice Dept. has filed suit to require B. F. Goodrich Co. to hand over all technical details, plus a royalty-free production license, on a new process for synthetic rubber that is the chemical equivalent of natural rubber.

The government's claim: The process was developed by Goodrich chemists under a \$1.7-million government research contract in effect from 1949 to 1955. The government's objective, Justice Dept. attorneys say, is to make the process available to the entire rubber industry.

Narrowly defined, the suit involves only one synthetic rubber research contract, but the outcome can pack significance for all companies engaged in their own research while doing related work under the grant.

Goodrich indicates a three-part defense will be made against the suit: (1) The synthetic breakthrough was achieved by Goodrich-Gulf Chemicals, Inc., a subsidiary which it owns jointly with Gulf Oil Corp.; (2) private corporate funds financed the research; and (3) the disputed process for the new synthetic rubber, known commercially as Ameripol SN, is in no way related to the federal research project.

• • •

GSA to Try, Try Again With Plan For Lease-Purchase of Buildings

This week the Administration decided to revive its lease-purchase program—shelved three months ago because of tight money—for the sake of obtaining some much-needed public buildings.

Under the plan, private interests were supposed to finance and construct federal buildings on long-term lease-purchase contracts with the government. But in more than two years, only one such deal was made.

Now the General Services Administration hopes to advertise by yearend for 39 projects worth \$71-million. This time it will sound out investors in advance—and it won't ask for bids unless financing seems sure.

• • •

Congress Ready to Boost Housing But Not by Direct Cash or Loans

An omnibus housing bill is a virtual certainty this year. Last week the House set the pattern when it voted overwhelmingly for legislation designed to draw more private money into the mortgage market and to cut down requirements on payments.

But direct federal spending or lending will not be forthcoming—and they are what most observers consider necessary for any sharp upturn in homebuilding.

Major provisions in the bill passed by the House:

- Authorize the Federal National Mortgage Assn. (Fanny Mac) to invest an additional \$14-billion in the second mortgage market.

- Ease FHA down payments on homes for everyone, while allowing the GI loan program to expire. The FHA schedule of down payments is 3% on the first \$10,000, 15% on the next \$6,000, 30% on value over \$16,000—with the maximum loan still \$20,000. Thus on a \$20,000 house, the old \$3,200 down payments would be cut to \$2,400.

- Direct the Housing & Home Finance Agency to study mortgage credit as a prelude to setting legal limits on mortgage discounts that can be imposed on home builders, sellers, or purchasers.

The Senate is expected to pass a similar bill.

Meanwhile, federal figures this week indicated that the decline in homebuilding may be nearing a stop. In April, starts were 92,000, up from 83,000 in March. Seasonally adjusted, the annual rate in April was 940,000 units, compared with 880,000 in March. But housing is still soft; a year ago the annual rate was 1,157,000 units.

• • •

Natural Gas Hits Stiff Opposition In Fight Against FPC Jurisdiction

To the dismay of the oil industry, the Eisenhower Administration has specified tough terms for legislation that would free natural gas producers from most regulation by the Federal Power Commission.

Major proposals by the Administration for any "gas bill" would:

- Permit FPC to consider production cost as a factor in gas purchase contracts between suppliers and interstate pipelines. FPC would retain direct regulatory jurisdiction over pipelines, and could force producers to defend proposed rates in controversial cases. The petroleum industry insists that the going field price, not cost, should be the factor in FPC's field rate regulation.

- Make periodic escalation in prices subject to FPC review. The Administration favors automatic escalation only to cover any tax increases slapped on natural gas production.

The outlook as of this week: No gas bill in 1957, unless the Administration relents. Petroleum's friends in Congress won't accept the Administration approach, but they can't pass their more liberal version of the legislation without White House support.

• • •

Wilson Assigns Deputy to Head Missile and Satellite Programs

Defense Secy. Charles E. Wilson has named William M. Holaday to boss both the nation's missile program and the Vanguard earth satellite project. In the missile job, Holaday—a former Deputy Assistant Secretary of Defense—succeeds Eger V. Murphree.

The satellite is scheduled for launching as part of the International Geophysical Year beginning July 1.

"I am a Burlington Man"

I'm the Burlington's Local Agent in my home town.

Some nights I lie awake and hear one of my railroad's fast freights rumble over the Main Street crossing... or the distant horn of a speeding *Zephyr*. And then I think about my railroad... about the things my neighbors eat and wear and use on their jobs... and all the other things my railroad brings to my home town.

Sometimes I think about our crops and manufactured goods... carried to consumers by my railroad. And there's another thrill for me in the fact that the Burlington's streamlined *Zephyrs* make it so easy for my neighbors to visit and know our America.

You can see why I'm proud to be one of the 30,000 Burlington men and women. Our railroad—11,000 miles of it in fourteen mid-western states—is an essential artery of our nation. I'm glad to tell my friends and neighbors—"I am a Burlington Man!"

**Burlington
Route**

Chicago, Burlington & Quincy Railroad
Colorado and Southern Railway
Fort Worth and Denver Railway

BURLINGTON LINES • *Everywhere West*

BUSINESS ABROAD



BAYER, West German chemical company, has 300 buildings in its Leverkusen plant (above). Successor of I. G. Farben, Bayer is . . .

Coming Back Bigger Than Ever

Nearly 40% of Bayer's products have been developed in its own laboratories (right) since 1948. Now the company is spreading into overseas markets.

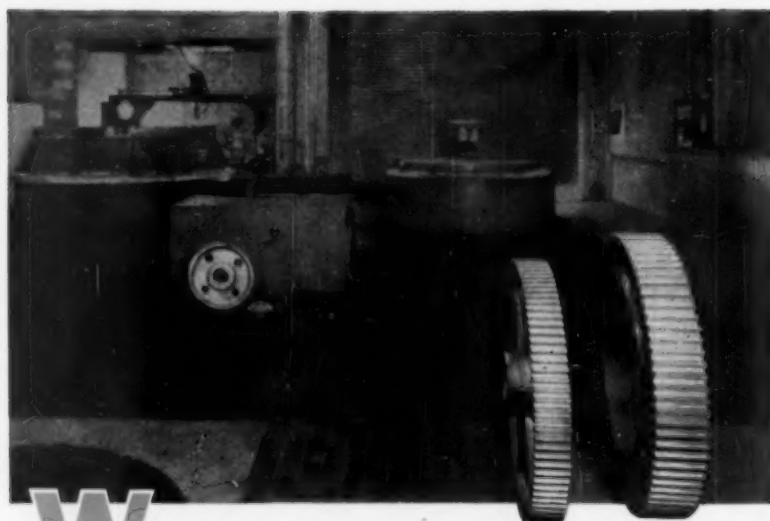
THIS YEAR the Big Three of West Germany's chemical industry—Farbenfabriken Bayer, Badische Anilin und Sodafabrik (BASF), and Farbwerke Hoechst—ignored the Hannover Fair, showcase for industrial products. To the West German chemical trade, this meant “the return of the I. G. Farben spirit”—the feeling of being on top of the world and not caring about publicity.

There's no doubt that the Big Three—successors to I. G. Farben, Germany's prewar chemical giant—have moved back into the big time.

In 1946, the Farben group under the Bayer name did a \$52-million business. In 1951—when the Americans, British, and French carved Farben into three big and two smaller companies—the new Bayer had sales of \$220-million. Last year Bayer could boast a \$380-million business, with BASF (\$357-million) and Hoechst (\$353-million) not far behind. Next year, Bayer expects sales of \$476-million.

• **Across the Sea**—One sign of Bayer's resurging—and broadening—activity is its steady, quiet movement into the U.S. market. In two of the hottest chemical





World's largest Radiant Tube Pit-type Carburizer installed at

...more precise heat treatment for larger gears

• New heat-treating equipment, including the largest radiant tube pit-type gas carburizing furnace ever built, has recently been installed in the Pittsburgh plant of our subsidiary, Pittsburgh Gear Company. These new additions to BRAD FOOTE's extensive heat-treating equipment provide facilities for the most advanced techniques in deep case carburizing and hardening in controlled atmospheres.

• The new carburizer can handle gears or machine parts up to 6 feet long, 6 feet wide and up to 8500 pounds in weight. In addition to its size, the new equipment has an unusual ability to control carbon penetration, giving extremely precise control of the depth of surface hardening.

• Special heat-treating equipment, like this new carburizer, allows BRAD FOOTE to impart the precise metallurgical characteristics which make for longer wear, shock resistance and freedom from distortion in gears of all sizes and types. And BRAD FOOTE heat-treating is under the supervision of metallurgists with long experience in the special problems of the gear industry.

• Whether you want one gear or ten thousand, BRAD FOOTE's extensive facilities and specialized skills are at your disposal. Send us the specification on your next problem job for quotation. No obligation, of course.



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Bishop 2-1070 • Olympic 2-7700 • TWX: CIC-2856-U

AMERICAN GEAR & MFG. CO. PITTSBURGH GEAR COMPANY

Phone: Lemont 920
Lemont, Illinois

Phone: SPalding 1-4600
Pittsburgh 25, Pennsylvania

BRAD FOOTE



BRAD FOOTE MAKES

Spur • Bevel
Helical • Spiral Bevel
Herringbone
Zerol • Worms
Worm Gears • Reducers
Transmissions

fields—plastics and insecticides—Bayer has established strong ties here.

In 1954, it joined with Monsanto Chemical Co. in forming Mobay Chemical Co. to develop and produce polyurethane plastics. Mobay is just beginning to operate in the black.

Bayer has also acquired half the voting stock of Chemagro Corp., a company formed jointly with Pittsburgh Coke & Chemical Co. to produce insecticides. Chemagro's plant in Kansas City, now under construction, will probably start production late this year.

Recently, Bayer has taken full control of Vero Beach Laboratories, Inc., in Florida—an experimental lab on a 63-acre site for testing insecticides.

• **Films and Dyes**—In the photographic field, too, Bayer is in the early stages of a sales campaign to market two new types of films and two new cameras in the U.S. under Bayer's Agfa trademark. The company began negotiations with General Aniline & Film Corp. last year to reacquire U.S. rights to the Agfa trade name. Outside the U.S., Bayer has long been selling Agfa photographic supplies—and running a close second to Eastman Kodak. Now, with negotiations here settled, Bayer has set up Agfa Photo, Inc., to sell Agfa products in the highly competitive U.S. film and camera market.

Bayer's latest move—not yet officially announced—is the purchase of Verona Chemical Co. and Verona Dyestuffs. This will firm up its reportedly close ties with Verona for exchanging technical information and distributing Bayer dyestuffs in the U.S.

• **Bayer Aspirin**—The only major area where Bayer has made little headway is in pharmaceuticals.

Back in 1912, it formed Bayer, Inc., here primarily to make and sell Bayer aspirin. When the government seized Bayer during World War I and put it up for sale, Sterling Drug Co. won the bid. Since then, Sterling's Bayer Div. has had exclusive U.S. rights to use the Bayer trademark. (During World War II, Bayer also lost its trademark in four Commonwealth countries.)

Many observers think that Bayer could easily forget its trademark here—even though it uses the trademark in West Germany and other foreign countries—and come out with pharmaceuticals under a new name. However, its U.S. lawyers—Arnold, Fortas & Porter (of which Thurman Arnold is a partner)—have a case pending in the federal district court of northern New Jersey that could force Sterling to license concurrent use of the trademark to Bayer.

Meanwhile, since 1949, Bayer has developed close ties in the pharmaceutical field with Schenley Laboratories.

• **Licensing**—On top of all this, Bayer's



American Type Founders Co., Inc. saves \$6050 every two years at their modern main plant in Elizabeth, New Jersey . . . uses Sylvania's Group Replacement Plan to change over 11,000 lamps and overhaul over 5,000 fixtures.

\$6050 saved regularly by American Type Founders with Sylvania's Group Replacement Plan



American Type Founders Co., Inc. estimate a regular saving of \$6050 over former lamp replacement and fixture maintenance costs with Sylvania's Group Replacement Plan.

This major saving is on labor alone—employed to change over 11,000 Sylvania fluorescent lamps and to completely recondition over 5000 fixtures every 2 years. ATF also enjoys the additional advantages of greater lighting efficiency, increased production, less work interrup-

tion, and improved employee morale.

These major lighting economies are largely due to the service life, the quality, and the improved maintained brightness of Sylvania fluorescent lamps.

For example, when ATF initiated their Sylvania Group Replacement Plan, lamps were changed annually. ATF found that in actual operation Sylvania fluorescent lamps were exceeding their Rated Life of 7500 hours, because of the minimum on-and-off cycles in effect. Consequently, it became possible to adopt a 2-year replacement plan. Burn-out records showed a rate of less than 20% over a two-year period!

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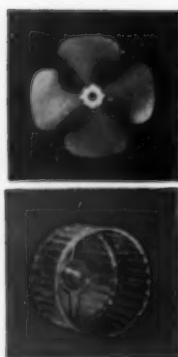
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136 *Business Abroad*

"... the Western powers were slow in breaking up the Farben empire ..."

STORY starts on p. 133

office in New York—Metachem, Inc., headed by E. M. Phlueger—negotiated at least 20 agreements over the past four years involving patent licenses and knowhow. Through Mobay, which is looking for licensees, Bayer has signed agreements with Goodyear Tire & Rubber and General Tire. B. F. Goodrich has latched onto two Bayer processes.

In turn, Bayer has about 10 licenses from U.S. companies, including du Pont's Nylon, though it holds this license primarily because Bayer's own Perlon overlaps with Nylon in certain production steps.

• **Strong Backbone**—Bayer's relatively quick comeback at home and in foreign markets stems from the fact that the Western powers—despite their best intentions—were slow in getting down to the practical job of breaking up the Farben empire.

At war's end, Farben represented 45% of all capital invested in the German chemical industry. It had nearly 200,000 employees, was doing a \$1-billion-a-year business. It held direct or indirect control over 400 German and 400 foreign companies—55 of these in the U.S., according to Bayer.

In 1951, the piecemeal program of chopping up Farben and weeding out Nazi elements came to a head. Instead of calling for 43 separate companies, the final breakup decree ordered Farben to split into five companies—Bayer among them. Bayer started with two advantages: \$92-million in Farben capital—the largest of any of the five new companies—and a postwar history of little interference from the British occupation forces.

• **New Empire**—Today, sketching out the Bayer organization, you get this picture: four main plants, at Leverkusen (300 separate buildings there), Uerdingen, Elberfeld, and Dormagen; 2-million tons of raw materials moving to these plants mostly by barges on the Rhine River; 47,000 employees compared with 21,000 at war's end.

In the past eight years, Bayer has invested about \$1.6-billion in plants and laboratories. These include new facilities for producing Agfa film, synthetic fibers, pharmaceuticals, antibiotics, and isocyanates.

Altogether, the new Bayer empire produces some 3,700 chemicals, 6,800 dyestuffs, 1,180 pharmaceuticals, 55 insecticides, 390 photo-chemical products, and 2,000 resins.

• **Share of Business**—Like Bayer, the German chemical industry still has not

BUSINESS WEEK • May 18, 1957



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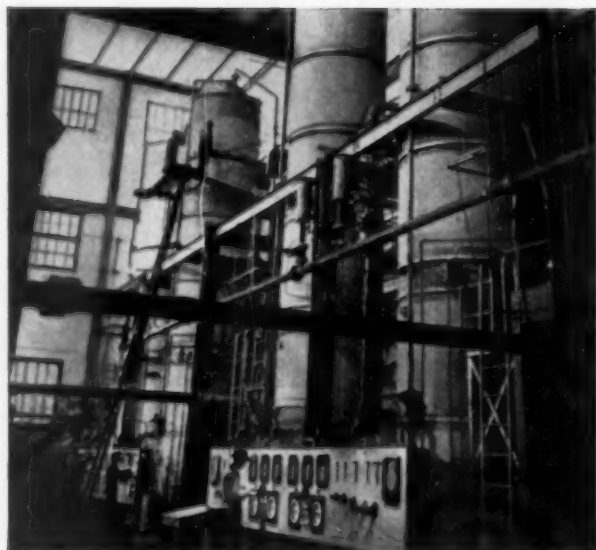


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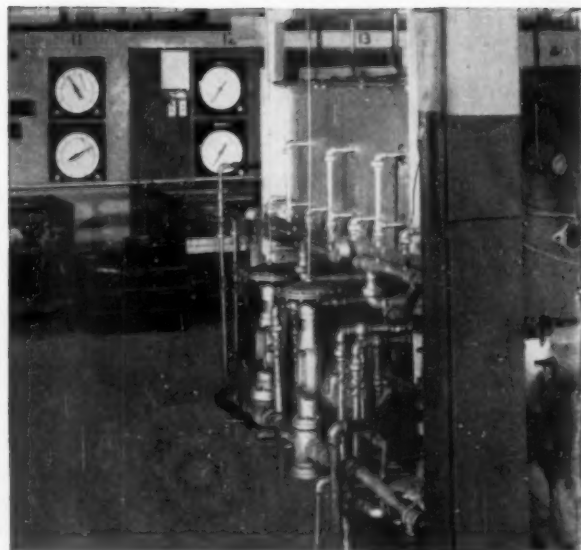


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regained its prewar position in world chemical markets. Back in 1938, it accounted for 22% of world production; today, only 6%. But its chemical exports rank third—behind the U. S. and Britain.

Bayer's exports play a big role in the German economy. While its total sales represent roughly 10% of West Germany's \$3.8-billion chemical sales, its exports are about 16% of the \$900-million worth of chemical exports.

• **Ambitious**—Bayer looks at its comeback as a triumph over high costs of raw materials and high tariff barriers in many foreign countries. The company claims its raw material costs are three or four times those of the U. S. chemical industry. Most of the 1,377 German chemical companies have met this problem by concentrating on a limited number of products. But Bayer has gone in for a wide range of products based on a relatively small number of cheap raw materials.

Overseas, Bayer is planning a dye-stuff plant in Pakistan. It already has one subsidiary in South Africa, another in Chile, two in Argentina, and four in Brazil. In Brazil—for instance—Bayer is putting \$35-million initially into production of bichromates, anilines, textile and pharmaceutical intermediates. Next year it will move into plastics. While Hoechst, competing with Bayer, has a tie-in with W. R. Grace & Co., Bayer plans to go it alone in Brazil.

• **Strong on Research**—The company's success rests on two things: intensive research and strong management. It has some 1,500 scientists—a Nobel Prize winner among them. It is spending a high proportion—around 5%—of each sales dollar on research. Result: Nearly 40% of Bayer's products now being sold have been developed since 1948.

Boss of Bayer's management is Dr. Ulrich Haberland, 57, who started with Farben in 1928 and during World War II became president of what is now Bayer. Haberland is a chemical engineer—in fact, he still teaches occasionally at Bonn University. As director of Deutsche Bank West, he has good connections for getting financing for Bayer's growth.

• **Concentrating Again**—With BASF and Hoechst, Bayer has bought up most of the shares of Cassella Mainkur—one of the two smaller successors to Farben. The Big Three are starting to buy into the fifth Farben successor—Chemische Werke Huels.

Over the years ahead, the Big Three—observers note—could regroup into a giant like prewar Farben. But as one man says: "That would be too huge a management problem." And he adds: "All these companies—Bayer included—have their old friendships and unwritten but definite agreements about the products each will make." **END**

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Fast Comeback in Colombia

That's what the country expects, now that it is rid of Rojas' dictatorship. But squandering has cost the nation dearly, and outside help may be sought.

Last weekend, another Latin American dictator bit the dust. Gustavo Rojas Pinilla, a professional army man who once worked on Detroit assembly lines, had taken over power a little less than four years ago when Colombia's two traditional civilian parties had brought the country to near civil war. Rojas had been welcomed by the sophisticated Colombians. Their idea was that Rojas would restore peace quickly and turn the government back, to the civilians. He didn't. Colombia, famous for its strong parliamentary traditions, became a typical Latin American dictatorship.

This week a military junta of junior officers under Rojas overthrew his personal dictatorship, promised to return the country to civilian rule. Rojas fled to Spain. There was general optimism in Bogota that the country, potentially one of the richest in Latin America, would now make a slow, sure recovery to orderly government. Elections are promised next year.

• **Squandered**—But the Rojas interim has cost dearly. One informed private estimate this week was that the Rojas regime had cost Colombia about 20-billion pesos—something like \$5-billion. This had been squandered in a manner that has become almost traditional in Latin America; in effect, it was a smaller, shorter replica of the Peron dictatorship in Argentina (BW—Nov. 5 '55, p. 59). Vast sums were lavished on the armed forces—and since Colombia has no traditional enemies on its borders, it was simple waste. Police units were equipped with expensive apparatus to keep civilian protest to a minimum. Both army and police were bought off by allowing them to import luxury goods, then peddle them to the rest of the population. Rojas' daughter, apparently modeling herself after Eva Peron, organized social welfare agencies—less philanthropic than ostentatious. Rojas, himself, became the subject of a whole welter of jokes about his growing fortune. And even though he told reporters after his flight that he had only \$15,000, private banking sources in Bogota reckoned this week that he had \$10-million salted away in foreign banks.

Beyond the ruin that could be calculated in dollars and cents, Rojas had cost the country much in morale and stamina. Businessmen's first complaint was the increasing and definite deterioration of republican institutions; the

impudence with which state affairs were handled has had no equal in dignified Colombia's history.

The final crisis came when Rojas clashed with the Catholic Church, more powerful in Colombia than in any other Latin American country. The Church had taken up the cudgels against Rojas when youth groups in the country began to swing violently against the government, threatened to go over to Communist or other radical leadership if the conservative elements didn't assert themselves against Rojas.

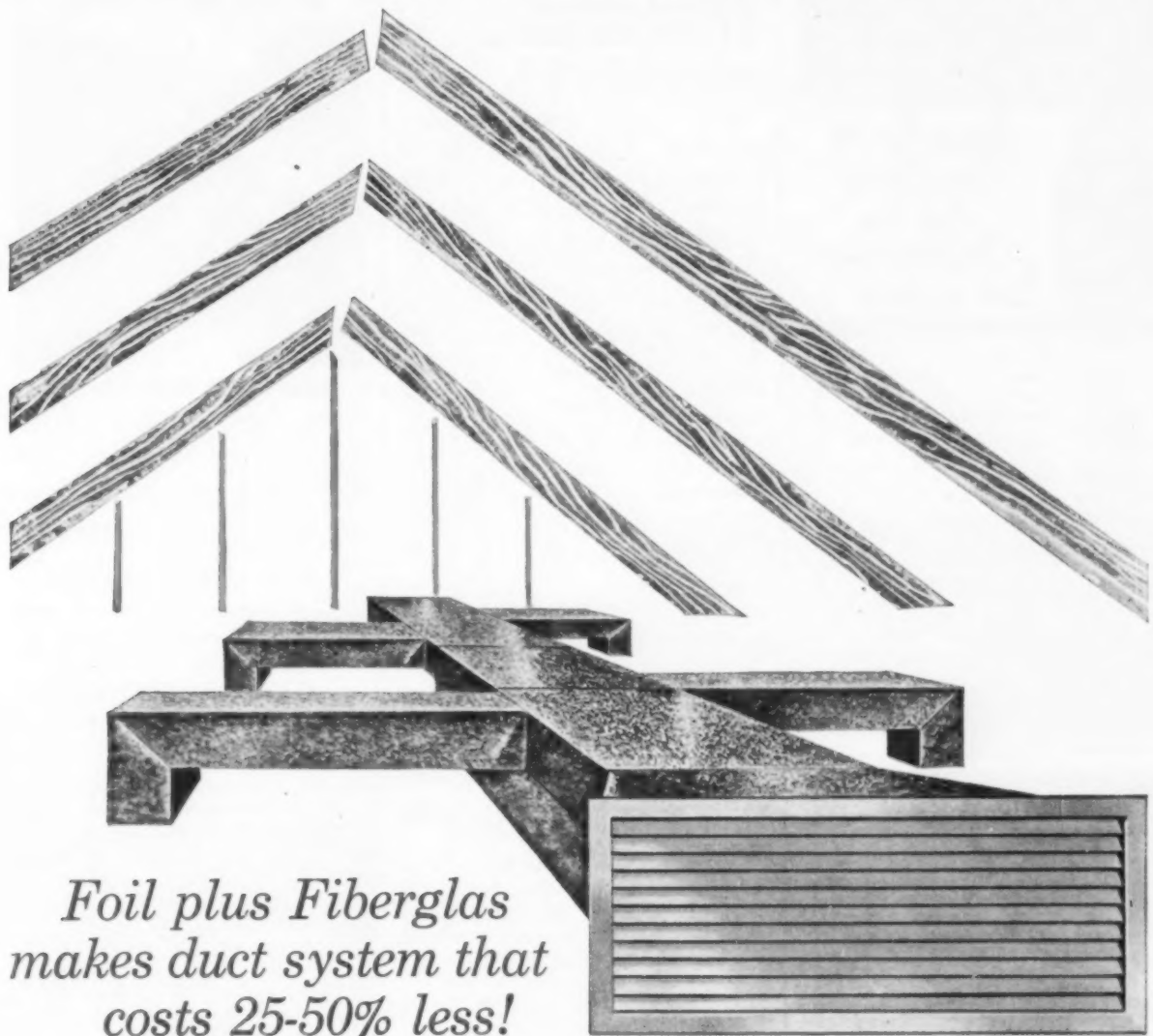
• **Recovery**—There is confidence now that the economy, almost at a standstill last week due to political strikes and lockouts against the Rojas government, would recover with astounding speed. A new study of Colombia's backlog of payments to overseas suppliers will be undertaken although the recently negotiated agreement to fund them will be honored (BW—Feb. 16 '57, p. 150).

Much of the confidence can be attributed to the appointment by the military junta of Antonio Alvarez Restrepo, finance minister in pre-Rojas days, to pick up the economic pieces. Alvarez has some margin to play with. The Colombians have a \$113-million line of credit with the World Bank, not all of which has been drawn, and some of which has already been repaid. Financial circles in Bogota speculated this week the new government would probably ask for further foreign loans, perhaps after a devaluation of the peso.

Alvarez is expected to establish a single exchange rate replacing the multiple rate which facilitated so much of the corruption under the Rojas regime. There is talk of liquidating some of the state companies like the Barranca-bermeja paper mill and the government-owned periodicals. Alvarez also is reported planning a national economic advisory council that would help him undertake a complete reform of the foreign exchange and fiscal system.

• **Era of Good Will**—Much depends, of course, on whether the political air can be cleared. The two political parties, the Conservatives and the Liberals, have signed a pact to cooperate. The optimists are predicting a five-year period of good will. The army will not dominate the picture, they say, since it got a good demonstration last weekend of the fact that machine guns are not enough to stem revolutionary ferment when it reaches fever pitch. **END**

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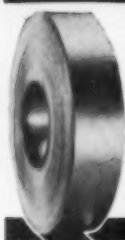
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ANALYSIS	1010
FINISH	#3 finish
HARDNESS	#4 Temper
THICKNESS TOLERANCE	± .0005 Incl. crown
WIDTH TOLERANCE	± .005
COIL SIZE	up to 200± per inch of width
PACKAGING	Paper interleaved—skidded and shrouded



SIZE	4 x .085
ANALYSIS	1010
FINISH	#2 finish
HARDNESS	#3 Temper
THICKNESS TOLERANCE	± .0005 Incl. crown
WIDTH TOLERANCE	± .005
COIL SIZE	Cut lengths
PACKAGING	Skidded



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In 1956
these coffee producers
supplied a total of
\$1,300,000,000 of
coffee to the U. S.

(Millions of Dollars)

Brazil	\$604
Colombia	373
Mexico	86
El Salvador	44
Guatemala	65
Venezuela	27
Dominican Republic	29
Ecuador	17
Honduras	10
Costa Rica	7
Cuba	12
Nicaragua	16
Haiti	5
Peru	6

Data: Pan-American Coffee Bureau &
U. S. Dept. of Commerce.

A Hill of Beans

A huge one, in fact:
That's what Latin American
coffee sales mean to a wide
range of exports.

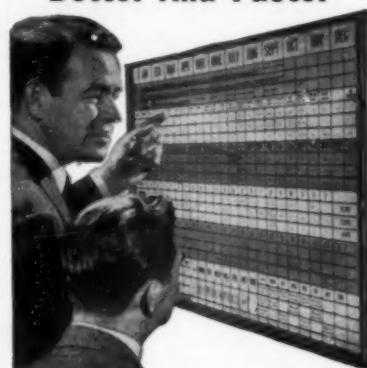
The U.S. exporter this week got a vivid glimpse of how much coffee means to him—coffee that has been translated by trade into money that pays for his goods in Latin America.

The glimpse was provided by the Pan-American Coffee Bureau, a promotion agency set up in New York by Latin American countries. What the bureau set out to demonstrate was that U.S. purchases of coffee in the 14 coffee-producing nations—\$1.2-billion in 1955 (chart)—provided a very big chunk of the \$2.7-billion that the same countries in the same year spend on imported North American consumer and capital goods.

To make its point, the bureau surveyed 1,058 companies scattered pretty well all over the U.S., using as its take-off point an earlier breakdown of the \$2.7-billion U.S. exports. These figures showed that \$630-million was in heavy machinery, \$517-million in vehicles (autos, ships, or trains), and \$400-million in grain, vegetable, and animal products, and other U.S. agricultural products.

• Variables—These exports, of course, were of varying importance in different

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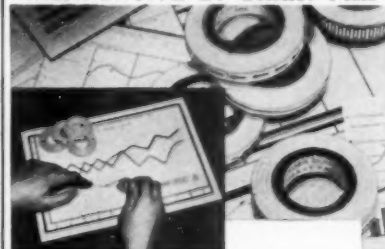
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sectors of U.S. industry, but they accounted for between 5% and 10% of U.S. production in construction and mining equipment, machinery, tractors, drugs and medicines, and grain. What's more, the citizens of the 14 Latin American countries were collectively the biggest per capita consumers of U.S. goods—save only the Canadians. Per capita buying in the 14 countries was \$20.08, compared with \$18 for the United Kingdom, \$12 for West Germany, \$8 for France, and \$7 for Japan.

• **Breakdown**—The Coffee Bureau went on from here to find out how all this Latin American purchasing affected our different states and cities. Its findings cast interesting light on the over-all importance of this buying that is so largely financed by coffee.

Thus the single state of Indiana, in 1955 shipped \$136.8-million in vehicles, machinery, chemicals, metal products, and glass to the Latin American coffee producers.

Nebraska, generally thought of as primarily agricultural, shipped them \$15-million, with machinery and auto parts swelling the figures for meat products and grain. Georgia's total ran around \$33-million, including textiles, wearing apparel, pulp-paper-fibreboard, machinery, and chemicals.

The survey went on to stress the importance of U.S. coffee purchases (chart, page 145)—and therefore of the fluctuations, sometimes wild, of coffee prices—to the purchasing power of these valuable Latin American customers. In five of the 14 countries, coffee provides between 60% and 86% of all foreign exchange earned in world trade: Brazil, 60%, Haiti, 66%, Guatemala, 77%, Colombia, 84%, El Salvador, 86%.

For the 14 countries as a whole, coffee provided \$1.8-billion out of the \$6.1-billion earned by all exports. And this share was dragged down by the relatively small share of earnings that comes from coffee in Mexico, Venezuela, and Cuba—the three biggest U.S. customers in Latin America.

• **Favorable Balance**—Despite the fluctuations of coffee prices and other factors, the 14 Latin American countries over-all have managed to maintain a favorable balance of trade with the U.S. in every year except 1947, when the advantage swung to the U.S. by \$930-million as the Latin Americans spent the cash they had piled up during the war.

Their purchases here have been growing steadily in relative importance. In 1937 they took 12% of all U.S. merchandise sold abroad; in 1955 the figure was 20%. And the figures are likely to increase further, with their population, now 140-million, expected to reach 200-million by 1975. **END**

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In Business Abroad

• • •

Henry A. Arnold Picked to Head

Olin Mathieson Overseas Subsidiary

Olin Mathieson this week announced it had picked an old Latin American hand, Henry A. Arnold, as the head of its new wholly owned subsidiary, Olin Mathieson International Corp. The new subsidiary will encompass all of the company's overseas activities—including production and marketing of Squibb pharmaceuticals, Mathieson industrial and agricultural chemicals, Winchester sporting arms and ammunition, non-ferrous metals, cellophane, and paper-packaging products.



Arnold has been vice-president of Olin Mathieson charged with South American operations and also president and general manager of E. R. Squibb & Sons (Argentina) S. A. His 30 years in Latin American business also includes a long stint with International Telephone & Telegraph Corp. of Latin America.

• • •

Machinery Gets the Fattest Part

In Osaka's Expanded Trade Fair

Osaka's trade fair—two-thirds bigger than last year's—bloomed this week with automation processes and machinery. More than 60% of the 90,000 products displayed are machinery.

The U.S. pavilion this year is featuring finished products that seem to attract more Japanese attention than the appeal to movements and ideas in displays of previous years.

The most spectacular crowd-drawer is a million-dollar RCA color TV exhibit complete with studio, stage, dramatic cast, and eight receivers in an adjoining room. Atomics International and AMF Atomics are showing two model reactors. Westinghouse is showing a model of its Shippingport atomic power plant and Atomic Laboratories, Inc., is demonstrating training devices.

• • •

West German Overseas Investments

Growing Despite Reputed Lack of Capital

Despite the fact that West Germany is generally considered to be short of capital, the rate of German overseas investment seems to be rising steadily. During the first three months of this year, investments of German companies in foreign countries totaled \$31-million.

Since Feb. 1, 1952, German companies have put a total of \$342.1-million into foreign countries. The rate

has been steadily going up from \$36.6-million in 1952-53 to \$131-million in 1956.

The biggest part of the investment is in Latin America (\$116.6-million), Europe (\$114.5-million), Canada (\$38.8-million), and the U.S. (\$33.3-million). Africa's share was only \$20.8-million, Asia got \$14.8-million, and Australia, \$3.3-million.

The largest investors were the German metallurgical and steel industry with \$58.3-million, the chemical industry with \$45.2-million (page 133), the electrical industry with \$37.6-million, machine-building with \$26.7-million, and autos with \$20.9-million.

• • •

Fiat Refurbishes Its Own Ship

For Carrying Autos to U. S.

For months European auto producers—on top of all their other problems in cracking the U.S. market—haven't been able to get North Atlantic shipping. This week word comes from Italy that Fiat, the giant Italian auto and steel corporation, has attacked this problem in its own fashion—building its own shipping. Fiat recently announced plans to enter the U.S. with several of its small cars and sports designs (BW—Apr. 13 '57, p144).

Fiat built its own ship, outfitted especially to carry cars. The vessel, christened *Italterra*, is a converted 10,000-ton *Liberty* that Fiat acquired in 1946 as part of the U.S. aid program for Italian industry. The ship was stripped virtually to the hull, its engines replaced by Fiat-built marine diesels. The superstructure fore and aft has been converted into three-deck garages and the holds have been turned into four-deck storage areas.

The *Italterra* set sail last weekend from Genoa with a full cargo of 1,000 Fiats. The cars were loaded unboxed in special frames slung from cranes. The ship is flying the flag of the *Societa Italiana*, a wholly owned Fiat shipping subsidiary, which engineered and executed the whole transformation. Fiat hopes the *Italterra* will carry a return cargo—but it probably won't be high-cost U.S. autos, only 600 of which were sold in Italy in 1956. More likely it will be baled cotton and machinery.

• • •

Business Abroad Briefs

Budgeting for a foreign car: The British Automobile Manufacturers Assn. says over 4,000 Americans—500 more than last year—will take delivery on British cars during their vacation abroad this summer. The price in Britain is 20% to 35% lower than in the U.S.

Openings abroad: IBM is building a second plant in Amsterdam. . . . Iraq has chosen Welton Beckett & Associates of Los Angeles to set up a combined architectural-engineering-contracting firm for the government in Baghdad. First project will be a new hotel to be operated by Hilton Hotels International.

Bottoms up: G. Krueger Brewing Co. will distribute West Germany's Holsten beer for Holsten Brewery in the U.S. market. Holsten will market Krueger's Cream Ale in Germany.



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INTERNATIONAL OUTLOOK

BUSINESS WEEK

MAY 18, 1957

A BUSINESS WEEK

SERVICE

Disarmament negotiators in London are likely to agree on a "pilot project." This won't inhibit the missile race between the Soviets and the U. S.

Best bet is that it will be an agreement for mutual inspection of Alaska, Canada, and Eastern Siberia. It may even include a start on limitation of conventional arms.

This agreement will not change the pattern of East-West relations. Soviet Party boss Khrushchev hinted in an interview that the Russians are aiming at another Summit conference. But Secy. Dulles made it plain this week that Washington isn't interested so long as Moscow insists on the partition of Germany.

The President's foreign aid program faces a new challenge from the special Senate committee on foreign aid. The committee has published a report that represents more than six months of intensive study and is sure to carry great weight with Congress.

The committee backed the principle of continued foreign aid. It supported Secy. Dulles' proposal to shift all military funds to the defense budget. But it rejected most of the other key Administration ideas—long term commitments, more administrative flexibility. It O.K.'d a revolving development loan fund but wants Ex-Im, the World Bank, Commerce and State Depts., to administer the fund on banking rather than foreign policy principles. It opposes soft loans.

The report, on balance, will encourage further cuts in aid. It is likely to set back the Administration's efforts to get the whole program on a long-term basis.

Simultaneously, it became clear this week that the President's Atoms for Peace program is in serious trouble as committee hearings opened. That's in spite of new interest in overseas atomic energy development (page 45). The program needs Senate ratification of the treaty authorizing U. S. participation in the International Atomic Energy Agency—heart of the President's proposal. This week the experts were giving it only a 50-50 chance on the Hill.

Defeat of the treaty would be a heavy blow to U. S. prestige abroad—particularly in the underdeveloped countries. Russia already has O.K.'d the treaty, was the first major power to do so.

London is worried about the European Common Market because it leaves Britain, Scandinavia, Switzerland, and Austria out in the cold. Talks have been suspended on a plan to include Britain in a free trade zone with "Little Europe"—the six continental countries forming the Common Market.

The British were miffed because France and Belgium put their African territories into the proposal, making London's problems with the raw materials producers in the Commonwealth all the more difficult.

Now the British are pressing to resume the talks. They see free Europe breaking into two economic blocs if the trade zone isn't set up before the six parliaments ratify the Mar. 25 treaty to establish the Common Market (BW—Mar.30'57,p148). But the Continentals, especially the French, don't want any complications added to their job of getting an O.K. on the treaty—

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
MAY 18, 1957

something that now seems to be moving quite well. Chancellor Adenauer, however, is reported sympathetic to the British position.

—•—

The Macmillan government has weathered its first major crisis. When the Prime Minister accepted Nasser's terms on the Suez Canal this week, he lost the support of the extreme right wing of the Conservative party. But only eight Tory members deserted him. With luck, he may last out the two years the Conservative mandate still has to go. And that might even reverse the political tide that's been running Labor's way.

In France, in contrast, the Mollet government is just entering a crisis period. The National Assembly has reconvened in a restive mood. Mollet's policy of backing Nasser has the full support of the delegates. But Mollet has had to present a new tax packet to the legislators. It is, in effect, an austerity program to finance the Algerian war until a solution can be found. The combination of reluctance to vote these taxes plus Mendes-France's campaign against Mollet's Algerian policy could put the screws on the premier.

—•—

London believes the Soviets are having more trouble in trying to balance their international payments. Last year the Russians sold \$150-million worth of gold. London estimates they've sold that much in the first four months of this year alone.

The Russians used the gold to buy foreign currency—mostly sterling. The sterling, in turn, was used to pay the foreign trade debts of Hungary, Poland, and East Germany. Furthermore, Russia probably ran a substantial trade deficit of its own with Britain and the sterling area.

—•—

New pipeline projects in the Middle East are beginning to take definite shape. Representatives of seven international oil companies reconvened in London this week for technical, legal, and financial studies.

The oilmen in London conference are planning pipelines that, in all, would move 70-million tons of crude annually from the Middle East fields to the Mediterranean. This would give the companies the capacity needed to meet the demand expected by 1962. Several lines are under study, but the \$1-billion project to connect Persian Gulf fields with the Mediterranean via Iraq and Turkey is farthest along.

—•—

This week the U. N. Economic Commission for Latin America sounded two warnings to its 24 member nations:

- During 1956, per capita income in Latin America stopped growing. That's because the region's population grew more rapidly than did its economies. Export industries did get a big boost from stepped-up investments of U.S. and foreign capital last year. But ECLA says the region needs diversified industries that sell to domestic markets.

- Western Europe's plan for a Common Market—and closer ties with Africa—could spell danger for Latin America. Already, ECLA notes, Africa is stepping up exports to Europe of foodstuffs and raw materials. These are the same things Latin America sells to Europe. If the Common Market spurs new investments in Africa, Latin America may see African goods seriously cutting into its share of the European market.



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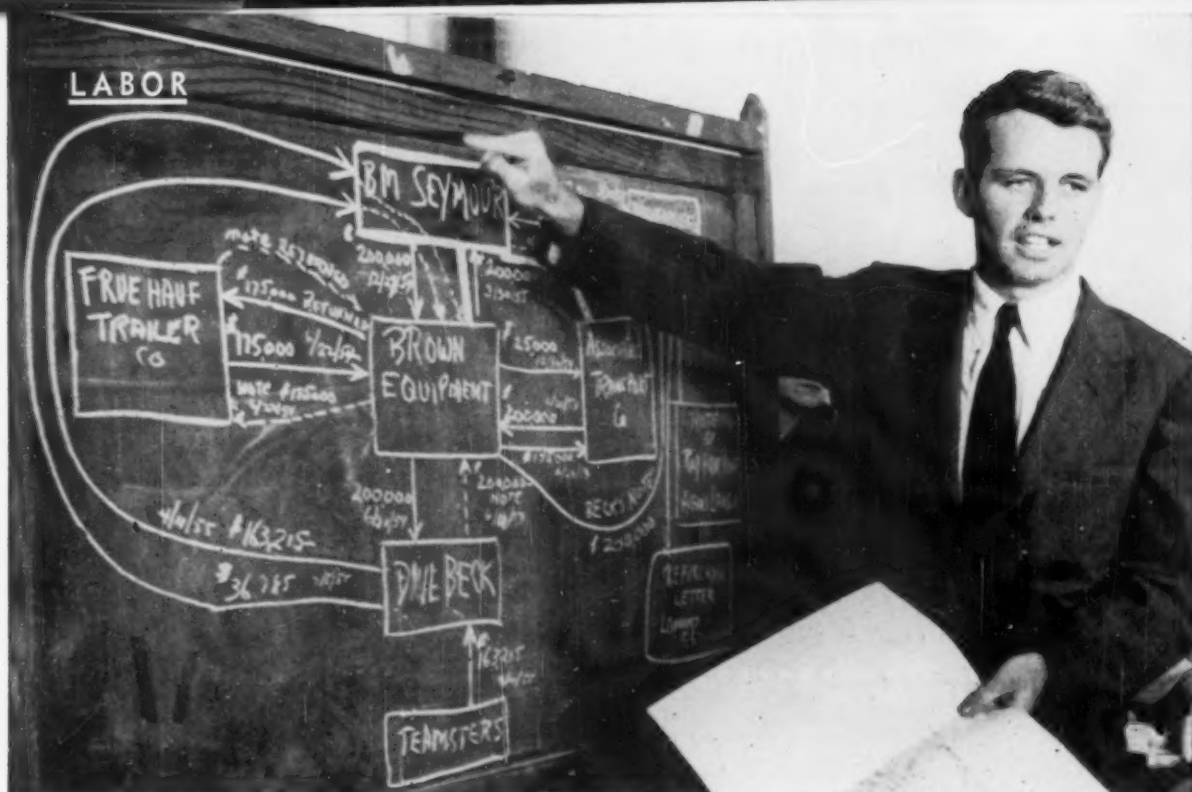


CHART HELPS Robert Kennedy, chief counsel to McClellan committee, trace one of Dave Beck's intricate—and shady—business deals.

Looking at Beck's Business Deals

Revelations on Teamster boss' business operations make it almost inevitable now that he will lose his union job.

BEFORE his troubles began piling up, Dave Beck was an uninhibited philosopher of the world of business—one who freely recounted his personal financial successes while running the International Brotherhood of Teamsters.

A self-proclaimed millionaire, Beck proudly admitted that preoccupation with finances took much of his desk time at union headquarters. But, he added, he was making money for the union, too.

This week, the Senate Select Committee headed by Arkansas Sen. John L. McClellan took a look at Beck the businessman. As his complex activities were unfolded, it was apparent that Beck had fared well, but there was more and more doubt that the Teamsters had.

• **Jig Up?**—The revelations, added to those of earlier committee hearings, made it almost certain that Beck is through as head of the IBT. Pressure within the union was building up fast. With key leaders taking a "Beck must go" position nationally, it appeared at midweek that there was only a question

of when Beck would quit—not whether.

Involved testimony about his relations with employers, frequently to the detriment of the IBT, directly or otherwise, was the clincher to arguments inside the Teamsters that Beck must go. If anything more was necessary to turn support in the union away from him, testimony that Beck profited personally from a memorial fund for the widow of a unionist—described as "Beck's best friend"—did the trick. Revolt spread through Midwestern Teamsters locals, and it grew bolder. An anti-Beck leader said, in expurgated form: "The memorial fund deal stinks. Beck sent two personal letters to local unions, insisting that they ante up to the fund. That money came from the dues of rank-and-filers."

• **How He Did It**—Earlier testimony about Beck's "loans" from Teamsters funds had already been damaging to the man who rose from laundry truck driver to the presidency of the nation's biggest union—and a salary of \$50,000 a year, plus expenses. Later hearings took up from there. They indicated that Beck's financial operations followed two broad patterns:

• They developed through companies set up by Beck or controlled—directly or otherwise—by Beck or his relatives. These included investment firms, such as the National Mortgage Co., and operating companies, includ-

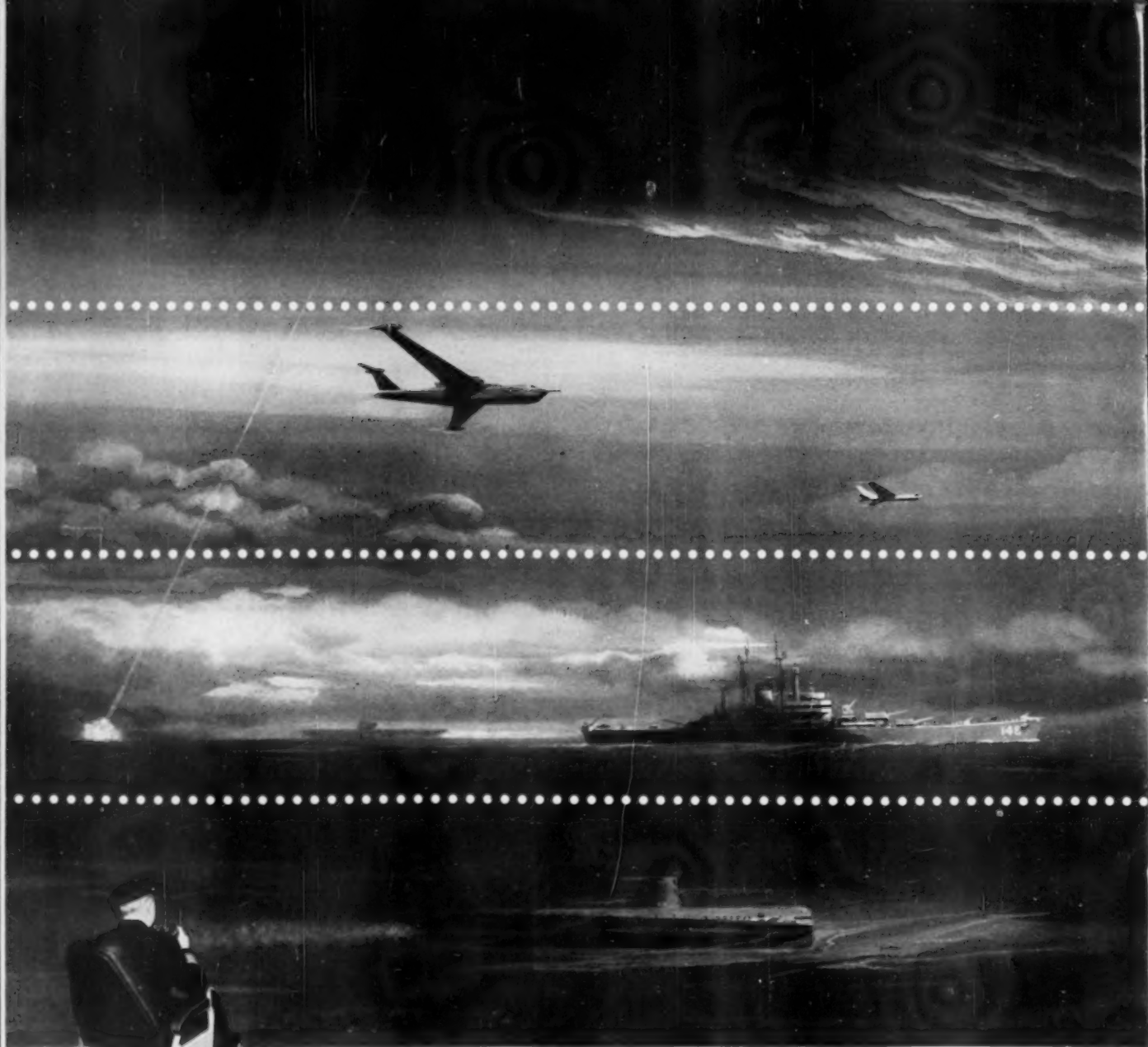
ing the K & L Distributing Co.

• Or they made use of Beck's "big wheel" contacts with employers dependent on the Teamsters. These involved business projects, as in the case of Anheuser-Busch, Inc.; mutual loans and favors such as were exchanged with the Fruehauf Trailer Co., or favors from firms such as he received from the Occidental Insurance Co. after it took over the health and welfare programs of the Western Conference of Teamsters.

• **Black Ink**—Generally, the Beck enterprises were profitable for the Teamsters chief or his relatives. A beer distributorship netted \$78,000; the sale of toy trucks to Teamsters locals and the purchase of equipment for Teamsters headquarters brought in \$70,000, and the memorial fund deal—a real estate contract transaction—netted \$5,792. Nevertheless, despite Beck's pride in his business sense, he was often shown to be in need of cash. Many of his projects were worked out, according to committee testimony, to raise some quick money.

As revealed to the Senate committee, the deals were complex and often circuitous. They took adroit maneuvering—grant Beck that—but, in the words of one committee observer, the Teamsters chief had everything going his way; he couldn't lose.

Several deals illustrate the way the



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union leader operated in the world of finance. They were outlined for the McClellan committee by sometimes reluctant witnesses whose memories were prodded by Chief Counsel Robert E. Kennedy.

I. Fruehauf Trailer Co.

In 1950, trucking management and the Teamsters set up a trade association to promote the industry through legislation and the like. Members included Dave Beck as chairman, Roy Fruehauf, president of the Fruehauf Trailer Co., and Bert M. Seymour, head of Associated Transport Co.—all of whom have appeared as witnesses before the investigating committee.

While Beck declined to discuss the matter, the committee probed into two loans—\$1.5-million from the Teamsters treasury to Fruehauf in 1953 to help him win a proxy battle, and \$200,000 the next year to Beck.

• **Loan to Fruehauf**—When Roy Fruehauf faced a proxy fight in 1953 with the late George J. Kolowich, he went to Beck for help. A loan was worked out.

There was in existence an obscure Roy Fruehauf Foundation, Inc., established to train leader dogs for the blind. Fruehauf was its president. The Teamsters, with Beck as trustee, bought on the open market over a period of time about \$1.5-million of Fruehauf stock and turned it over to the foundation to be voted by Roy Fruehauf. The stock ownership was retained by the union as collateral, but Roy Fruehauf got the voting power and the foundation collected the dividends.

The foundation, and Roy Fruehauf personally, guaranteed the Teamsters a 4% return on the union's money, as well as full repayment. The loan was fully repaid by October, 1955, after turning out to be a good deal for everybody.

• **Complexities**—What intrigued—and confused—the Senate investigators most was the \$200,000 loan to Beck at a time when, Counsel Kennedy said, Beck needed the money to make up a deficit in his debt to the Teamsters. Roy Fruehauf testified that Beck asked his company for the money; Fruehauf turned over \$175,000 to the Brown Equipment & Mfg. Co., a subsidiary of Associated Transport, to give to Beck.

When Beck couldn't repay Brown Equipment on time, Associated Transport's president, Bert Seymour, came to his aid by arranging for a loan from the Manufacturers Trust Co. of New York.

The bank loan, in turn, was repaid by Brown Equipment when Beck still couldn't furnish the money. However, in April, 1955, Beck sold his home to the union for \$163,000, at which time he was granted life-time occupancy, and

he used the money to pay off Brown Equipment.

The Senate testimony failed to clear up the source of the other \$25,000 of the original \$200,000 loan.

• **Plaything**—The senators also learned that Fruehauf and Seymour paid \$14,000 into a Beck-inspired project for the sale of toy trucks to Teamsters locals; the funds were used to manufacture the trucks—sold at a net profit of \$84,000 for Beck and friends.

Fruehauf, with some reluctance, testified about other favors granted to Beck. Among other things, he said, the company allowed Beck to use the Fruehauf company plane and provided a car and chauffeur for Beck's niece and three friends on a six-week tour of Europe. Beck reciprocated in kind. Correspondence that went into the record showed that Beck and other Teamsters leaders intervened to withdraw Teamsters pickets from Associated Transport lines during a strike and supplied bargaining information about his business friends' competitors.

Testimony brought out that Beck also sought favors from the Occidental Insurance Co. Subsequently, the company told BUSINESS WEEK that it couldn't comment directly before an appearance at a committee hearing, but that all of its transactions "will stand up under most careful scrutiny and meet the highest requirements of ethical, moral, legal, and business standards."

II. Anheuser-Busch, Inc.

In Seattle in 1949, at a time when Anheuser-Busch was reentering the area for the distribution of Budweiser beer, Dave Beck managed to secure the dealership for his son, Dave Beck, Jr., and two others. He put up \$24,000 for his son's share. From that point on, the junior Beck rose rapidly in the firm.

Testimony from the president of the K&L Distributing Co., Irving J. Levine, revealed that under Beck's prodding, Anheuser-Busch gave K&L the biggest distributing territory. But Levine said he was demoted one day when the Teamsters refused to unload a K&L beer truck. The company was advised by Beck that the trouble could be straightened out if Beck, Jr., became president. He got the job.

• **Mother and Son**—At the same time, Mrs. Dave Beck bought into another company, the K&L Beverage Co., distributing liquor in Canada. Several years later, both Beck, Jr., and his mother were bought out by Levine at a good profit to the Becks. Anheuser-Busch was becoming disenchanted with Beck, Sr., at about that time.

John L. Wilson, executive vice-president of Anheuser-Busch, testified that there were other favors to Beck during the period—including special beer ship-

Here the Crown Graphic records the measurement of ceramic density in the Kearfott laboratory.

Dick Pruden, Kearfott photographer, uses a Graphic View camera to photograph test equipment in the studio.

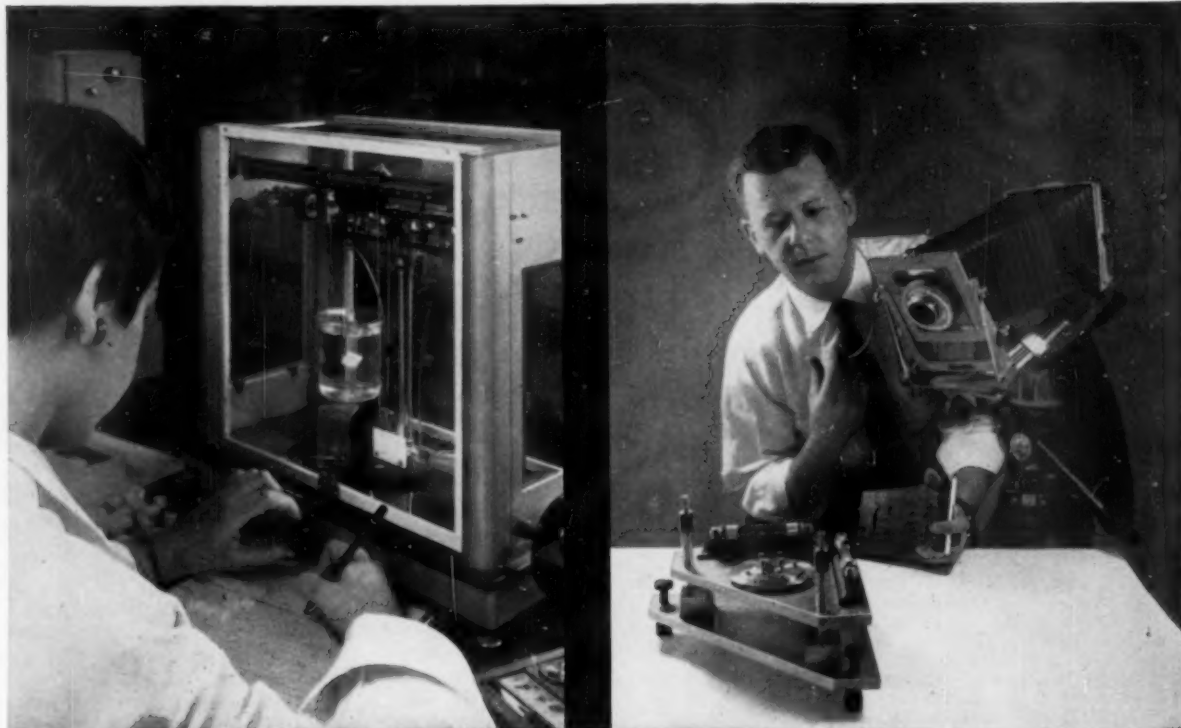


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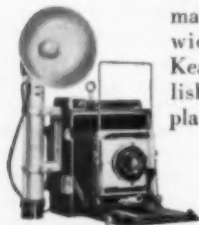
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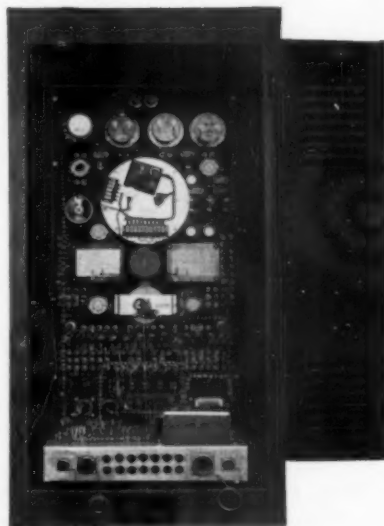
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ments to K&L. In turn, he testified, Beck furnished bargaining data about the beer company's competitors. When the Beck K&L interests were sold to Levine, the company gave him \$120,000 credit to make the deal possible.

III. National Mortgage Co.

The National Mortgage Co. was set up by Beck, represented once again by a relative—this time a nephew, Joseph A. McEvoy. The Teamsters funneled mortgage purchases through the firm—several million dollars worth at a service fee of 0.5%. In addition, National Mortgage was involved in other business deals through Beck—one involving the widow of his closest friend.

A \$75,000 trust fund for the widow, Mrs. Ray Leheney, had been promoted by Beck and, as trustee, he took over investment of the funds. Beck and National Mortgage's president, Don Hedlund, purchased—with Teamsters funds—real estate purchase contracts at a discount.

In turn, on Beck's advice, Mrs. Leheney approved the purchase of those contracts with the fund money at par value. This netted Beck and Hedlund an \$11,585 profit, shared equally. Hedlund testified that it was still a very profitable deal for the widow and that Beck did it "from the heart, not the head."

IV. Montgomery Ward & Co.

Another deal that aroused McClellan committee interest involved Beck and the Sewell Avery management of Montgomery Ward & Co.

Louis Wolfson began buying stock in late 1954 in a battle to unseat Avery and win control of Ward's. There were other contenders, but Wolfson was the most feared (BW—Oct. 2 '54, p172; Dec. 11 '54, p27). The Teamsters began buying the company's stock, as "a sound investment," and eventually amassed holdings estimated at about \$2-million.

According to testimony by a Washington attorney, Alfons Landa, Montgomery Ward consulted him about getting Beck to vote the Teamsters stock for Avery in the proxy fight. The union at the time was reported in the press as planning to cast its votes for Wolfson.

The union was interested, in organizing some 50,000 Montgomery Ward employees nationally. The stock purchase plan was widely interpreted as a pressure move, to smooth the way for the drive. Landa told the Senate committee that he "advised" Beck against voting for Wolfson, and told him that he felt that the Teamsters could organize Ward's employees if Avery retained control. Beck expressed an interest. On a "strictly voluntary" basis,

Landa said, he telephoned the Avery proxy solicitor and told him of his conversation with Beck, and was told that the solicitor would "pass the word along." The Teamsters subsequently switched their voting choice—and it was a big blow to Wolfson's hopes for success (BW—Apr. 9 '55, p27). After the Avery victory, the Teamsters moved in to organize Ward's employees, and get a "maintenance of membership" clause in mid-1956; the company had always opposed any form of union security clause before that.

Stellato Wins

Landslide vote sweeps an old critic of UAW's Pres. Reuther back into office for another two years.

Members of the United Auto Workers' big Ford Local 600 take their union politics seriously. There's never any question about the democratic rights of its members. They have a vote—and most of them use it.

Last week, more than 25,000 went to polling places to sweep their president, Carl Stellato, back into office for another two years. The total vote was more than 80% of the 32,000 reported eligible.

The vote, which Local 600 claimed was "well above the average for national elections," gave Stellato 21,233 votes, his nearest of several rivals only 3,359. Stellato, a frequent critic of UAW's president, Walter Reuther, termed the vote an "expression of confidence" in his leadership. Even so, it can't be considered any reflection against Reuther or his international union administration.

• **Hands-Off Policy**—The international UAW made no attempt this year to influence the voting in the Local 600 election. Its past failures to swing support to partisan candidates were, undoubtedly, a factor in this year's hands-off policy. However, there probably was an even more important factor: Stellato no longer is regarded as a serious foe of Reuther, and his reelection was conceivably considered to be more advantageous than his defeat.

• **"Nuisance" Value**—As leader of a fight against a dues increase proposed to the recent UAW convention in Atlantic City, Stellato mustered only a few votes. Other parts of his opposition program drew a similarly slight backing.

There were a few comments about Stellato's opposition being "only a nuisance." Privately, though, some high in international union circles commented that the Stellato bloc serves a purpose as a "loyal opposition" in



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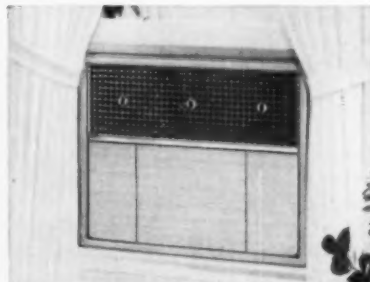
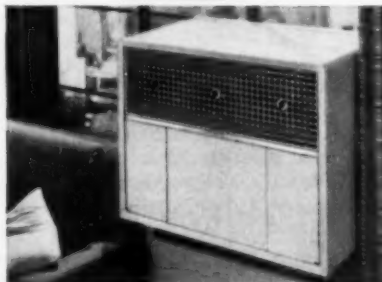
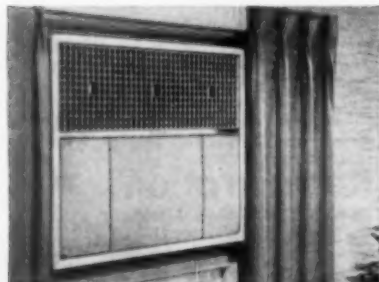
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UAW; its continuance is a safeguard of democratic processes, a guarantee of debate, and, unobtrusively, a testing ground for new ideas.

This last is particularly significant. Under Stellato, Local 600's contract thinking and propagandizing is frequently more advanced and far-reaching than that of international UAW. It has been building up the issue of a shortened work week for several years. Now, the parent union is taking over. Insiders say it hasn't just happened that way.

• **Setback**—Whatever is the interna-

tional's position toward him, Stellato is now apparently more secure than ever in his home base. Other major candidates on his ticket were reelected with him. However, he suffered one sharp setback that could indicate trouble ahead in 1959.

Carl Stellato's brother, Tony, lost a bid for reelection as president of the local's Dearborn Engine Div. unit, the largest in Local 600. The victor was Paul Boatin, one of five local officers suspended by international UAW in 1952 for alleged subservience to the Communist cause. Boatin was rein-

stated four years later. He won easily over Tony Stellato, 1,989 to 1,383. The local's leftwing, once strong, reportedly gave him substantial support.

• **Clamp Down**—While building his political position in the local, Carl Stellato worked with the leftists in a coalition. After his election in 1950, he clamped down on their faction. Now, insiders predict that Stellato will get rough with the left again in the next two years—in part because he blames them for his brother's defeat, in part to block their possible political resurgence.

Engineers Hand UAW a Rebuff

Turndown of union by Minneapolis-Honeywell engineers and technicians is severe blow to UAW's white-collar hopes; carefully planned company campaign was the clincher.

Engineering and technical employees of the Minneapolis-Honeywell Regulator Co., in Minneapolis, last week overwhelmingly defeated the United Auto Workers in the union's important bid to set up a professional division.

On the union side, the severe setback to UAW hopes will force a thorough reexamination of the approach to white-collar unionization—a second look at the problems to be faced in winning engineers and technicians, the key workers in automated industry.

On the management side, what happened at Minneapolis-Honeywell may provide other employers with a successful formula for withstanding union assaults against their unorganized professional personnel.

• **What Happened**—After 10 years of representation by an independent union, affiliated with the Engineers & Scientists of America, Honeywell's 2,200 professional and technical employees not only balked at uniting with UAW but also rejected both UAW and independent unionism.

With 1,451 eligible to vote in an engineers' unit, the vote was a strong 896 for "neither union," against 314 for UAW and 197 for the independent ESA. The nonunion vote was 63% of the total.

In the technical employees' unit, 404 of the eligible 746 voted for "neither union," with 254 for UAW and 62 for ESA. The nonunion vote was 56%.

The total pro-union vote was actually smaller than the number of professional personnel who had been paying dues to the independent union voluntarily. It also represented a loss of 300 who had signed UAW cards and were counted as "sure" by the union.

• **"Classic Drubbing"**—In the words of one of its leaders, UAW took a "classic

drubbing." It had expected a close victory among engineers and an easy one in the technical employees' unit.

Why the defeat? Certainly, the long-time wariness of white-collar workers toward big unionism contributed to it. However, a carefully planned, strongly conducted company campaign against UAW was the clincher.

Three days after all sides agreed to a National Labor Relations Board election, J. H. Binger, Honeywell vice-president, sent an advisory memo to all engineering and technical supervisors.

"We think the time has come to take the handcuffs off by doing everything we legally can to stop UAW from tying our hands again with an industrial-type, factory-minded, anti-company union," he told them. "We don't intend to pull any punches, but we will stick strictly to the truth. You are a basic part of this total program, and this memo is intended to help you be more effective in this campaign."

• **Basic Technique**—The company plan placed the burden of persuasion and argument principally in the hands of the supervisors. Because of the nature of professional work, each has an intimate, personal relationship with those under him. Close friendships and social intermingling are important, too.

Binger reminded the supervisors of this. "You work with these men. You talk with them every day. In the course of the program, you will find a fair and an honest and a forthright way to bring up the points made in this memo and in other documents and information which will be coming your way," he told them.

He warned the supervisors to be on guard against stepping over the line that separates persuasion from coercion—which is illegal under the Taft-Hartley

Act. And he cautioned them against promising benefits for voting against the union. As much as possible, he urged, each supervisor should discuss the issues as a close friend more than as a management representative.

And Binger added:

• "Individual employees or small groups of employees are not to be called into a supervisor's office for the purpose of discussing the election. However, if the employee is in the supervisor's office on other matters and the election [issue] arises, then the supervisor should feel free to discuss it fully."

• "Supervisors are not to call on employees at their homes for the purpose of discussing these subjects. However, wherever the supervisor and an employee have a normal social relationship, and one happens to be visiting in the home of the other, there is no reason to refuse to discuss the UAW or other issues."

The company furnished supervisors with a 42-page loose-leaf notebook of company arguments for its pay program, hiring policy, promotions, merit increases, and other "professional" benefits, and against UAW on grounds of strike violence, political action, and policies which the company said place the auto workers in "an ideological straight-jacket."

• **Executives Helped**—In addition to the supervisors, top executives pitched in. Those with a direct relationship to engineers or technicians placed the company's views before small groups and participated in question-and-answer sessions. And, in the crucial week before the vote, Paul B. Wishart, Honeywell president, sent employees a letter pledging "the best and soundest relationship" should unionism be rejected—but bargaining in good faith if it won.

Wishart included with the letter a booklet on the company's personnel policies, essentially a statement of practices developed in the contract with the Federation of Honeywell Engineers & Scientists (ESA). He said the statement

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bound the company to the past practices and was a pledge that "such important things as good salaries and benefits are not dependent upon a union to bargain for you."

The company ended its campaign at a lobster or steak dinner at which union issues were officially ignored—but not forgotten.

• **Union Side**—Both the UAW and ESA depended largely on leaflets and mailings, but also used group meetings in their campaign. The union figured at the start it had to pick up only 100

more votes to win, but it didn't relax.

Its stake was a big one. Earlier this year the UAW set up a new professional department and counted on the Honeywell group as its nucleus. At the union's Atlantic City convention, UAW officers stressed the importance of a Honeywell victory as the opening of a national campaign for engineers, scientists, and professional workers.

This week, UAW's general executive board, meeting in Detroit, began a glum survey of what might be done to salvage its long-term plans.

Last-Gasp Truce at Chrysler

Colbert gets together with Reuther to avert UAW strike, and auto company calls off \$5-million suit against Local 212. But much old bitterness remains.

Chrysler Corp. and the United Auto Workers, after letting tensions between them build up just short of the breaking point, have both backed off to catch their breath.

Last week, both sides wheeled up their ultimate weapons—the union a local strike vote that would have immobilized the entire company, the company a lawsuit against that local. Then, over the weekend, UAW Pres. Walter Reuther and Chrysler Pres. L. L. Colbert got together and arranged a truce.

The matters at issue were highly complicated and the "memorandum of agreement" between Reuther and Colbert is equally so. Boiled down, it is expected to mean that wildcat strikes, which have averaged two a week this year, will fall off at least temporarily, and that one consistently troublesome area between company and union has been wiped out. But there is no assurance that over-all Chrysler-UAW labor relations are now on a smooth course. There is such a heritage of wariness on each side (BW—Apr. 13 '57, p157) that no single meeting and no single agreement can wipe clean the entire slate.

• **New Stamping Plant**—In outline, what happened over the weekend developed from this situation: Chrysler is opening a new stamping plant at Twinsburg, Ohio. Up to now all the stampings have been done in Detroit by the approximately 23,000 members of Local 212. That local wanted assurance that any members displaced in Detroit by the Twinsburg operations would get hired at the new plant. In March, the company and the international signed a supplement to their contract, which, the company thought, gave transfer privileges to Local 212 members.

But the local president, Pat Caruso, thought the agreement was not specific enough, and that the company was not making office employees eligible for

transfer. So, he ordered his members to move no dies or other equipment out of a Chrysler plant until he had firm assurance of transfer rights to Twinsburg. Dies from one Detroit-area plant could not even be moved to another Detroit plant where they were to be used. The company supervisor would order dies loaded, the union members would refuse, the company would discharge them for insubordination, and the unit would strike. Inasmuch as the stampings were needed for assembly lines at all plants, a work stoppage of a day or so at a stamping plant could slow down or halt assembly of cars.

Last Wednesday, Local 212 voted to ask the international for permission to strike officially. The same day the company filed a suit asking \$5-million, plus \$500,000 a day for each day Caruso's "no-movement" order was in effect, charging contract violation. At the same time, Colbert asked Reuther to order Local 212 to live up to its contract. Reuther replied that he would be glad to discuss it with the Chrysler president, and so the Saturday meeting was arranged.

• **Terms of Pact**—Chrysler agreed to drop its lawsuit. The union agreed not to interfere with movement of dies and other equipment. Discharged employees were reinstated; additional meetings were set to clean up a list of pending grievances. The transfer rights to Twinsburg were reaffirmed and Local 212 employees were given companywide transfer rights—which all other Chrysler employees have had all along.

Local 212 didn't because its members used to work for Briggs Mfg. Co. when it made Chrysler's bodies. When Chrysler bought out Briggs' body operations three years ago and later established the automotive body division, Local 212 continued under a separate—and somewhat different—contract. **END**

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Herrin's new rigs feature the Diamond T Tilt-Cab, Cummins turbo-charged diesel engines, and Fuller 5-speed 5-A-650 Transmissions.

HERRIN of Houston adds 48 more Fuller Transmissions

Fuller Transmissions, used constantly in Herrin's fleet for over 10 years, were drivers' choice in the 48 new diesel tractors recently added by the Herrin Transportation Company, Houston, Texas.

Test results and drivers' opinions were the factors upon which the decision to add this newest equipment was based. "Fuller Transmissions have played an important part in our efforts to improve our service and provide consistent dependable performance and low operating costs,"

says W. C. Padfield, Herrin's General Superintendent. Company plans call for still more to be added, as present over-the-road equipment reaches retirement age.

Herrin's drivers say: "They ride better, handle easier, and give us the gears to keep engine speed up." Fuller 5-A-650 heavy-duty 5-speed Transmissions, with overdrive in 5th speed, are specified by Herrin for . . . right gear ratios, smoother shifting . . . faster trip time . . . less driver fatigue, and greater profits.

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In Labor

• • •

Top AFL-CIO Group Plans

Tougher Rules Over Union Funds

The AFL-CIO executive council is going to set up a new, tight code of rules for handling union funds. It is aimed specifically at the financial manipulations of Dave Beck (page 153).

The council will meet in Washington next week. The urgency of a federation housecleaning is at the top of its agenda. As part of its program, the council will adopt a fifth ethical practices code, to regulate:

- Bookkeeping and accounting practices of unions.
- Periodic, full reports on union funds to members and to "interested" public agencies.
- In what way union funds may be invested.

A steering committee of eight international union secretaries and treasurers, headed by William Pachler of the Utility Workers, drafted the code for the council.

Other ethical practices codes bar unions from chartering "paper" locals where they have no members; union officials from invoking the Fifth Amendment for "personal protection" and to "avoid public scrutiny"; ex-convicts and "commonly known crooks" from holding union office; union officials from profiting from health-welfare funds and from having substantial interests in businesses with which they negotiate.

Violation of the codes can lead to suspension or expulsion of the officials involved, and of their unions.

• • •

In Mississippi, Arbitration Clause

Doesn't Hold Water, Court Rules

A contract clause that requires the arbitration of future labor disputes isn't binding in Mississippi, the state's supreme court held recently.

The decision by five members of the nine-man court held that in the absence of a state law upholding arbitration, common law prevails—and, under it, either party may revoke an arbitration agreement at any time.

Unions said the decision will be challenged.

• • •

NLRB Faces Problem of Penalty

Against a Liquidated Company

The National Labor Relations Board faces a unique—but important—new question: What remedial action can be taken against a company liquidated "in a clear violation of law" because its workers chose to be represented by a union?

The question is raised by a case appealed to NLRB from a trial examiner's decision against the Darlington Mfg. Co., of Darlington, S. C. The union, the Textile Workers Union of America, asked the full board to

consider the ruling in its favor as "a classic example of legal futility."

TWUA won a representation election at Darlington last September. A week later, the company's directors voted to liquidate. The union filed unfair labor practice charges, but failed to get an injunction to block the liquidation.

NLRB's trial examiner found the company guilty on three counts under the Taft-Hartley Act. He noted that under the circumstances "there can be a decision to compensate [discharged workers] but we have no rule or basis for fixing the amounts."

Ordinarily, the compensation is back pay for lost work time. This is easily set if workers return to jobs after an NLRB ruling that they have been out of work due to a violation of their T-H rights. But, in the Darlington case, there will be no return to jobs to set a limit on their compensation. And, according to the trial examiner, there's nothing to prove if—or how long—the mill would have stayed open if the union had lost.

• • •

Cleveland Utility Strike Ends

With Freer Hand for Company

A seven-day strike of the Utility Workers against the Cleveland Electric Illuminating Co. ended last week in an agreement on a new contract. Workers got a 5% raise (from 10¢ to 15¢ an hour, by job grades), and the company won concessions on management rights.

The walkout was based partly on a dispute over the company's right to make changes that it might consider "necessary or desirable" in the interest of improved service, better operations, or lower costs.

With the city government pressing for a settlement, the demanded clause was toned down by eliminating its authorization to the company to proceed as "necessary or desirable." However, it still "may make changes in equipment, operations, the organization of work or the qualifications for any job" under stipulated conditions.

• • •

Union, Too, Would Like to Get

Teenagers Out of Presley Garb

Teenagers are too interested in rock-'n'-roll and Elyis Presley; it's reflected in what they wear—and what they aren't buying at the stores these days, Toledo locals of the Retail Clerks' International Assn. complain.

These fads have put the younger set into bluejeans and old shirts; there's a premium on "sloppy" dress that has cut into clothing sales, RCIA says. The union is interested for an obvious reason: It represents the clerks whose job security and pay depend on trade volume.

Last week, RCIA in Toledo sponsored a 2½-hour stage show featuring the "dress-up" music of Guy Lombardo. Its purpose was (1) to try to interest teenagers in a form of music that might get them out of bluejeans and back to store counters and clothing racks, and (2) at the same time to bring in money to be added to the local RCIA strike "defense fund" before new wage talks.



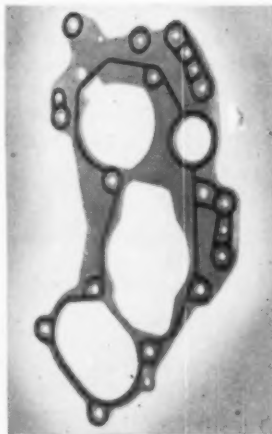
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THE MARKETS

Wall St. Talks . . .

. . . about auto earnings . . . market scuttlebutt . . . plight of nonferrous metals . . . bond prices.

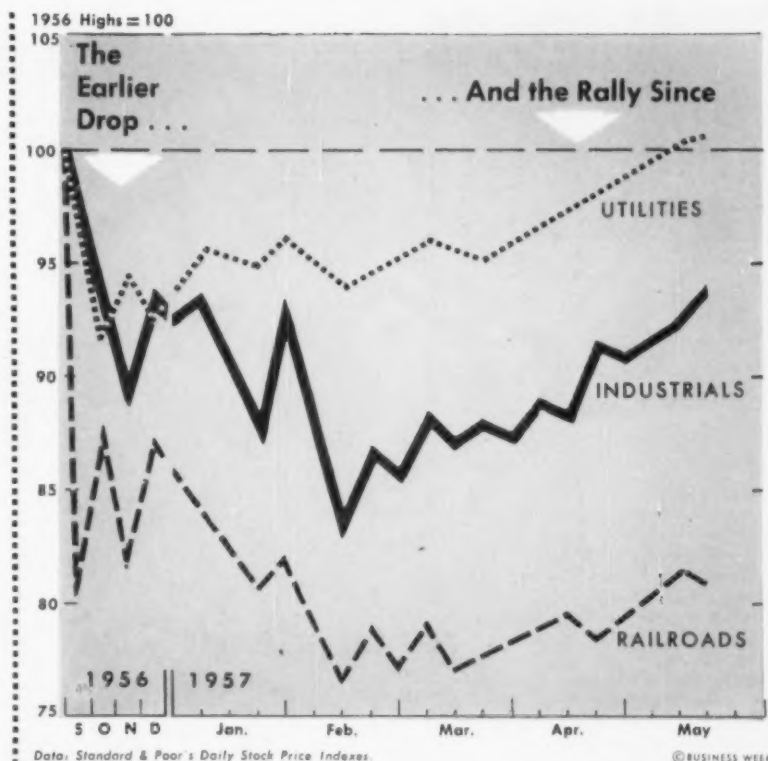
Guesses on 1957 auto earnings: Few Wall Streeters expect General Motors to match last year's earnings of \$3.02 per share. But they look for Chrysler to boost last year's \$2.29 a share to \$11 or \$12 and Ford to earn \$5.50 to \$6.50, compared with last year's \$4.38.

Rumors that have touched off stock price rises: Gulf Oil will split its stock, acquire Texas Gulf Producing, Shamrock Oil & Gas, or Anderson-Prichard Oil—maybe all three. . . . Bestwall Gypsum will be absorbed by Johns-Manville or Owens-Corning Glass. . . . Liquid Carbonic is negotiating a "promising" merger. . . . Zenith Radio and Caterpillar Tractor will split stocks. . . . Cooper-Bessemer has a big government missile order on the fire. . . . Crown Zellerbach will acquire Dobeckmun Co.

Nonferrous metal producers are nowhere near the end of their troubles, many Streeters think. They expect more dividend cuts among the group, especially by the copper producers (this week St. Joseph Lead cut its quarterly payment from 75¢ to 50¢ a share). That could lead to still deeper drops in stock prices, already sharply down from bull market highs.

The money market: Long-term government prices have drifted back not far above their all-time lows in January. One reason for weakness: rumors that the Treasury may offer 20-year 3½s in exchange for F and G savings bonds that mature. . . . Flotations of medium-grade utility bonds are running into rougher going. Sales have been slow in Potomac Edison and Alabama Power 4½s offered at prices that yield around 4.52%. The same goes for this week's offering of Central Maine Power 4½s on a 4.70% basis.

Shift in the nature of capital spending? Most companies must find ways to offset the cost-profits squeeze, says Incorporated Investors, a leading investment trust. While their post-war efforts "have been concentrated on expanding capacity," in the next few years "cost-cutting and labor-saving equipment could well claim a larger share of business outlays."



A High, But Few Cheers

Stock indexes reach a peak for this year.

But Streeters remain cautious in predictions.

ON MONDAY, the stock market resolutely stopped the backing and filling of recent weeks. Standard & Poor's daily indexes of industrial and utility prices moved to their highest levels of the year (chart).

At midweek, though, the breakthrough had aroused nowhere near the expected enthusiasm among brokers, or among traders and investors generally. Few analysts seized Monday's news to speed "buy, buy, buy" advice to their clients. And there was no flood of "rush" orders to buy.

Indeed, on Tuesday the profit-taking operations pretty well wiped out Monday's gains. On Wednesday there was no return of selling pressure; trading for the day was lackadaisical, with prices on balance tending to rise a bit.

Caution—As for what lies ahead, Streeters were in no hurry at all to scramble out on a limb with bullish predictions for the near term. Their caution was rooted on a number of the simple facts of market life.

By Monday's close, S&P's composite index of 500 stocks had clambered back

—since mid-February—to recover 61% of all the ground lost since the bull peak of the 1956 market. And as one market pro points out, "a recovery of such proportions alone would justify a pause for consolidation or technical correction," especially since there has been no such pause before in the post-February rally.

It must also be remembered that since February the market has pushed back into the much advertised "zone of resistance" which it had repeatedly failed to pierce in earlier upthrusts. It's a moot point whether this resistance zone will prove as impenetrable as ever, but in recent weeks the market has markedly lost momentum as it has pushed closer to the zone.

Gap in Yields—Bullish enthusiasm has been doused with cold water from another direction: the sharp narrowing of the gap between yields available on bonds and on common stocks.

Right now, stock yields are only 1.1 times those available on high-grade bonds; stock yields are at 4.09%, bonds at 3.73%. Any market technician will tell you that the margin in favor of commons is abnormally thin.

Moody's Stock Survey explained this week just why it's bad for stock and bond yields to be so close. Said the Survey: "Stocks and bonds . . . compete with each other to an important

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extent whenever their yields come close together. When that happens, it is a signal to many institutions, for example, which are accustomed to holding both kinds, that stocks are dearly priced compared with bonds. And under these conditions their buying policies are likely to veer toward bonds and away from stocks."

Moody's went on to say that "such a point was reached in 1956." The situation was corrected later by an upswing in bond prices which lowered their yield, and by a concurrent drop in stock prices, which fortified their yield. Of late, the bond market has been so weak and stocks so strong, that the gap in yields has reached the narrowest point in years, except for late 1956. And it threatens to go below even that dangerously thin level.

• **Stability**—There's still another factor that's uppermost in the minds of many smart students of the market. As Standard & Poor's put it:

"While we anticipate continued business stability in coming months, this is not the sort of fuel to feed a vigorous advance in stocks. Any lag in enthusiasm on this score might well be accompanied by a tendency to weigh current business news more critically." After all, S&P's warns, "interim uncertainties remain, including the possibility that some first-quarter earnings gains may be replaced by subsequent declines."

Thus you now find many market advisers warning, as does Moody, that this does not appear "the time . . . for stressing the buying side in the market." There are exceptions, at times, it says, "but when making purchases, one shouldn't be tempted to use up all buying reserves." And it adds "don't delay selling anything of doubtful value" and "don't count on 'the market' to make capital gains for you automatically." With such sentiments, Standard & Poor's appears to agree.

Dividends Rise, But More Slowly

Common stock dividends of companies listed on the New York Stock Exchange set a first-quarter record, but the rate of increase has slowed sharply. Cash dividends were \$2,124,608,430, up about 5% over the 1956 period. Last year, first-quarter dividends were 22% above the 1955 period (BW-May 12 '56, p178).

Of 1,082 common issues on the Big Board, more than 80% paid cash dividends in the first quarter, down a bit from the 83% last year. More significant was the fact that this year, not so many dividends were increased. This

year, 40.2% of the companies that paid dividends increased them, compared with 51% the year before. And 11.6% of the dividend payers cut the amount, against only 6.5% cut in 1956.

Two groups of companies—petroleum and utilities—accounted for 64% of the entire gain of \$99.2-million for the quarter, although they accounted for only 33.6% of total payments. If you add the chemical and machinery and mining issues, the four groups together furnished 86% of the dividend gain, though they paid out just 48.8% of all dividends.

Stock Group	No. of Issues in Group	No. of Dividend Payers				Estimated Dividends 1st Quarter 1957	% Change 1st Ql. '57 vs. 1st Ql. '56
			Higher	Same	Less		
Aircraft.....	30	25	9	14	2	\$31,379,330	+ 4.6%
Amusement.....	24	18	6	12	4	21,937,570	- 6.6
Automotive.....	64	44	14	28	10	188,180,420	+ 2.0
Building Trades.....	32	28	16	10	2	24,653,940	+ 8.3
Chemical.....	85	72	29	38	7	239,642,730	+ 6.5
Electrical Equipment.....	27	20	12	5	3	69,246,450	+ 4.8
Farm Machinery.....	6	4	1	1	2	15,980,300	- 1.7
Financial.....	37	27	9	15	4	45,715,360	+ 8.4
Food Products, Beverages.....	69	55	13	37	7	61,913,970	- 1.3
Leather, Leather Products.....	10	8	2	5	1	6,621,720	+ 1.1
Machinery, Metals.....	109	94	40	49	11	82,669,580	+ 9.0
Mining.....	41	26	8	17	4	80,399,200	+ 3.3
Office Equipment.....	10	8	5	2	2	10,795,470	+12.2
Paper, Publishing.....	38	32	17	11	5	45,239,430	+ 9.6
Petroleum, natural gas.....	46	39	19	20	—	327,762,840	+11.1
Railroads, rail equip.....	80	59	17	37	7	119,805,530	- 0.1
Real Estate.....	9	8	5	3	—	5,145,900	+ 6.9
Retail Trade.....	69	57	12	37	10	87,629,710	-17.0
Rubber.....	9	9	5	4	—	20,711,900	+ 8.1
Shipbuilding, Operating.....	9	8	4	3	1	7,690,390	+34.9
Steel, Iron.....	40	34	13	20	2	111,987,770	+ 1.5
Textile.....	43	31	10	19	6	21,731,170	+ 1.1
Tobacco.....	15	12	4	7	2	32,831,280	+ 2.9
Utilities.....	110	102	60	41	4	386,718,140	+ 9.3
Miscellaneous businesses.....	26	21	10	10	1	16,716,040	+15.5
U. S. Co.'s operating abroad.....	22	12	3	7	3	15,475,250	- 1.8
Foreign Co.'s.....	22	15	6	8	1	46,027,040	+12.7
	1,082	868	349	460	101	\$2,124,608,430	+ 5.1

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Site of the St. Lawrence Seaway

Development of the St. Lawrence Seaway will have a profound economic effect on the whole United States, and on the Empire State in particular.

Manufacturers from one end of New York State to the other will have direct access to the Seaway through the State's vast network of railroads, highways, and

existing waterways. And the St. Lawrence Power project will swell the area's already plentiful supply of low-cost electric power.

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Buffalo, Queen City of the Great Lakes, is the second largest city in New York State. It's the western terminus of the New York State Thruway which runs through the heart of the Niagara Mohawk System.

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PERSONAL BUSINESS

BUSINESS WEEK

MAY 18, 1957



Don't be bluffed by the mere thought of picking up a second language—chances are you know a good deal more about foreign tongues than you may imagine. If you've had some Latin or a modern language in school, you may have a better background than you think.

And if you're going abroad this summer, you'll probably have an ideal opportunity. There's nothing quite like practice with nationals on their home grounds to give the learner a fast start in French, German, Spanish, etc.

It's a lot of work—there's no denying that. But the new “conversational” methods of teaching—where you dive right into practical, everyday speaking—make learning faster, easier, more interesting. For example, with 40 to 50 hours of private instruction, you can learn enough to read a French or Spanish newspaper. In 80 to 100 hours you can begin to “think fluently”—and speak fluently—in either of these languages.

The trick to fast, efficient learning, of course, is frequent instruction and heavy practice every day. Experience shows that you'll move along at a good average speed if you can handle at least a one-hour lesson every other day or two two-hour lessons a week.

Much less than this, and you're apt to bog down and lose interest.

Decide first how you expect to use the language, and plan your routine accordingly. Do you need fluent Spanish for business in Latin America? Or scientific German—enough to read, say, engineering reports? Or do you just want to feel at ease with Parisian cab drivers and waiters?

Decide this, then plan the combination you need—of classes, tutoring, phonograph records, self-teaching books, maybe even travel abroad.

Private instruction is the best method—aside from living abroad—and the most expensive. At Berlitz, for instance, you'll pay \$165 for 30 hours, more if you have private instructions at home.

Most commercial schools will send an instructor to your office or home. Your best bet, though, for a private tutor, may be to contact the employment office of your local university.

Group instruction is less expensive—Berlitz charges about \$100 for 36 hours, with maybe four to six students in a class. Generally, the smaller the class, the better.

Don't overlook the university evening school in your town—often you'll find good instruction there. And if you've the time, look into schools that run special six-week summer sessions, where only the foreign languages are spoken—Middlebury College in Vermont, for example.

Phonograph records are best used to brush up on a familiar language, or to supplement formal instructions. But they're a good buy, too, for solo study if you decide to tackle a language on your own. You'll find them at most good book and record stores.

Some of the best records are: The Berlitz Self-Teaching Record Course, \$79.30; Linguaphone record course by Linguaphone Institute, Cortinaphone records by Cortina Academy, Funk & Wagnalls Language Phone, Henry Holt Co.'s Spoken Language Series (in which the speaker pauses for you to say a phrase, then repeats it as a double check on your pronunciation), and Assimil records by Assimil of Paris (which give you the latest phrases in common usage)—all in the \$50 to \$60 range. In the cheaper bracket, you'll find such aids as the Living Language Course, \$9.95; and Linguaphone's Brush-Up

PERSONAL BUSINESS (Continued)

BUSINESS WEEK

MAY 18, 1957

Series, \$15. Usually you get four to six long-playing records in a series.

Good self-teaching books include: The Berlitz series, \$2.95; and Prof. Mario Pei's *Getting Along* books, \$2.50.

Practice, of course, solves the riddle of language-study. When you get tired of the usual routine, try listening to foreign radio programs and going to foreign movies—even talking to transplanted waiters helps.

And get over any idea you may have that you're too old to become expert at a foreign language—any language. That's nonsense.

Here are a few ways to get the most out of your home air-conditioning system and keep the cost down:

- During the night—especially between 10 p.m. and 7 a.m.—turn the system off completely and open the windows, except when it's 80F or above outside. This can reduce the operating cost by as much as 50%.
- Don't turn on the kitchen exhaust fan except to dispel cooking odors. Running the fan continually is like having a window open; it can boost the air-conditioning load as much as 25%, and add 10% to cost.
- Use an attic fan to help keep the second story four to five degrees cooler at night. During the day, the fan will push out warm air that would otherwise settle and add to the cooling load.

If you plan to install air conditioning, keep these things in mind:

- If you have hot water or steam heat, you might try a new split system (separate from the heating) that calls for a remote water chiller in the basement and piping to carry cold water to fan-coil distributors. Or you might try a combination heating-cooling unit to use year-round.

Or if you're planning to build a house and think you may want a cooling system later remember:

- Install ducts capable of handling air conditioning. Often air ducts are too small and outlets are not properly positioned for cooling. If you need auxiliary ducts, the installation cost will be much higher.
- You may get by with less air-conditioning tonnage if your major window areas face south; large western glass exposures mean higher tonnage.

Now's the time to check your power lawn mower, if you like to work with mechanical equipment. Here's a checklist:

First, clean excess storage oil from the combustion chamber: While the fuel tank is empty, use the starter rope to pull the engine through several cycles. Then remove and clean the spark plug and check the firing gap.

Inspect the cutting blade and if it has small nicks, smooth them with a file. If the nicks are large, have the blade rebalanced or replaced.

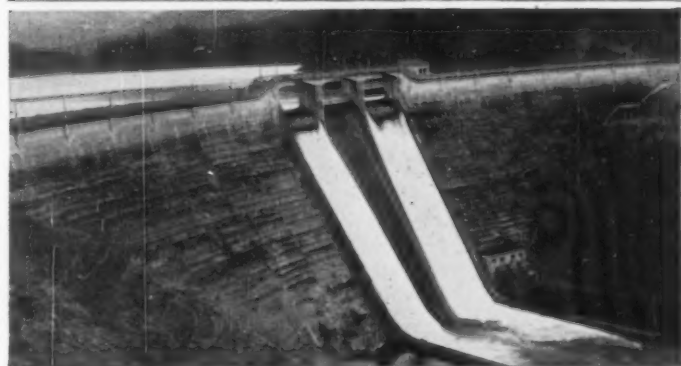
Check the gas tank and filter screen for dirt. If they need cleaning, rinse with raw gasoline. Then fill the tank with fresh fuel—not last year's. Let the fuel flow through the tube for a few seconds to make sure the line isn't clogged. Start up the engine to burn out any excess oil remaining in the cylinder; adjust the carburetor needle—and the mower should be ready to go.

On electric power mowers—besides general servicing—the main thing to check are motor brushes. They should be replaced if worn down to ¼ in.

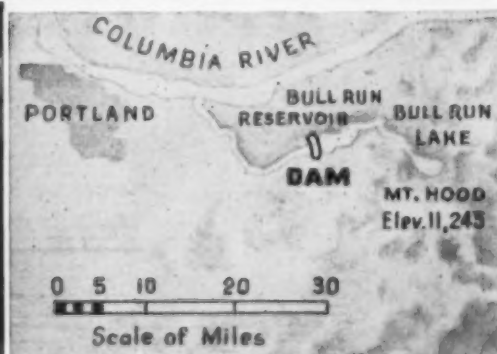
Opening Portland's water faucet



LINK-BELT POWER TRANSMISSION EQUIPMENT used in operating new Bull Run Dam gates includes worm and parallel shaft speed reducers—which reduce motor speeds to ½ rpm—couplings and ball bearings.



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BULL RUN DAM—200 feet high—was built in 1929. It stands near the summit of the Cascades, 21 miles northwest of Mount Hood.

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THOUGH left unattended for weeks without use—exposed to climate all the while—Link-Belt power transmission equipment reliably controls water supply for a half-million Portland (Ore.) residents. Similarly, whenever dependable power transmission is called for, all industry calls for Link-Belt. For facts on this complete line, write **LINK-BELT COMPANY**, Dept. AV, Prudential Plaza, Chicago 1, Ill.

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Motor-Borne Los Angeles Gives

In Los Angeles, the auto is a way of life. It's the key to the city's sprawling diversification, ties together the motorized pattern of living many other cities will soon be following. It also creates some problems the city is now tackling.

DESPITE its nearness to the Hollywood glamor industry, downtown Los Angeles is a duller spot to find yourself in after dark than almost any big city downtown section you could think of. That evening flight from downtown



BROAD HIGHWAYS (above) whisk traffic into Los Angeles; fast freeways (left) slice through its vast domain.



DISPERSED CENTERS bring work close to living; this Ambassador Hotel area has big offices, many apartments.



"TRACT HOUSES" dot city fringes and outlying county areas; freeways get people home in time for puttering.

Industry That Open-Air Touch

—the shift of all life and activity to other parts of the city's far-ranging 455 sq. mi.—tells you a lot about Los Angeles.

The pictures (above and cover), with their myriad cars and bulging freeway,

fill in the story. In Los Angeles, they say native Angelenos are born with a steering wheel in their hands—and newcomers quickly get into the habit. The automobile is no longer transportation, but a way of life.

These things make the pattern of Los Angeles—the sprawling decentralization of living in a city that spreads out to the horizon instead of climbing into the sky—the dispersion and diversification of industry that that implies—and



OPEN AIR LIVING—Los Angeles office girls find the "great open spaces" right outside Prudential Bldg. door.

MANY BEACHES are in easy reach—here at Huntington Beach, kiddies can skim pebbles in shadow of oil wells.



the great, motorized arteries that tie the city together and let it sprawl farther out over the landscape.

To many, it's the pattern that all our crowded cities will be aping in the future—the nearest thing we have today to the decentralized, motor-borne "city of the future," full of light, air, and open space, that municipal planners write books about. The pictures above give a notion what life can be like in such a city.

• **Mixed Future**—In a sense, Los An-

geles is testing out for the rest of the U.S. how the future is going to work. And, as you might expect, it's finding out that the future isn't entirely pleasant.

Los Angeles has thrived on rapid growth, the sort of growth that feeds on itself (Los Angeles County gets new residents at the rate of one every 140 seconds). But right now, a number of developments indicate that the city has entered a consolidation phase in its growth. In construction, for ex-



PELL-MELL GROWTH puts used-car mart next to motel, one of Los Angeles' loonier offshoots alongside oil development.

MOVIE GOSSIP here is like hearing about the neighbors; Hollywood glamor spreads over L. A., lends slightly gaudy tone to life.



ample, it's engaged in a fairly sweeping "mopping up" operation—going back over bypassed areas and redeveloping them.

Its way of life is bringing problems, too—traffic pile-ups in moving the motor-borne tides on converging freeways, a problem of future water supply that is not immediate but may be troublesome—and, of course, the celebrated smog.

Angelenos snort at the very suggestion that Los Angeles—which went 200 miles



SPORTS CARS, domestic and foreign, find probably their biggest U. S. market in L. A.—with their own used-car lots.

SWIMMING POOLS aren't just for stars; over half the new apartments have them; office-girl tenants get in swim.



BEDROOM SUBURBS—this is staid old Pasadena—are handy for any who find even Los Angeles too citified.

DRIVE-IN SNACKS, and even light meals, are popular; this one is right on Hollywood's Vine Street.



for its first water supply—could do anything but take these problems in its stride, and keep on growing. But how it surmounts them may help to mold the shape of the future in other cities, too.

I. Horizontal City

The Los Angeles dweller takes his automobile pretty much for granted. It's his personal passport to everywhere, and the closer he can be to it at all

times, the happier he is. As nearly everyone knows by now, there is an automobile for every two persons in Los Angeles, and at least three-fourths of the entire working force commutes by auto.

While the Angeleno thus accepts his ever-present automobile as a divine right, it also turns out to have been a divine inspiration. The automobile arrived as Los Angeles started its great growth, and helped to spread the city out horizontally over hundreds of

square miles. Long, broad streets were built across the area to accommodate a population traveling by tin lizzy—to be followed up by today's 204 miles of speedy freeways.

Of course the very nature of Los Angeles geographically—the wide open spaces and the warm climate—would have encouraged spreading out. And in the early days this spreading out was encouraged by the far-flung network of interurban Pacific Electric lines, now nearly all gone. But it was the auto-

Story starts on page 172

mobile that kept the process going and made it stick.

- **Suburbs in the City**—Just as the Angeleno adopted the automobile as a way of life, so he has also selected low density of population. The two are mutually supporting and they are the key to the business life and living habits of the city.

Los Angeles is the most suburban of large cities. That's one reason why downtown is such a dull place after dark—nobody is tied to it at night. The city's better cafes are clustered 10 miles from downtown. Night clubs are dying; you'll find only one really successful, first-class setup in all the city's sprawling miles—the Cocoanut Grove. Most entertaining is done at home, usually on the outdoor barbecue.

- **Key**—The early spreading out of the city is as much a key to its future as to its past:

- Because of the spreading out, only one small part of the area became so important, or so valuable, that the cost of redevelopment would be at all burdensome. This is the downtown section—incredibly small by most big city standards; and its redevelopment is already going ahead at a lively clip, so that before another decade it should rival newer areas of the city in trim modernity. This matter of susceptibility



TELEVISION now vies with movies in Hollywood-L. A. entertainment industry; below, NBC-TV shoots Tennessee Ernie Ford show.





AIRCRAFT is Los Angeles area's top industry, but it employs only 9% of labor force; L. A. is also key spot for missiles and electronics.



TRUCKING center along Alameda Boulevard points up distribution's role in L. A.—it's the distribution center of Pacific Southwest.

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MOVIES—along with oranges and sunshine—gave Los Angeles area its first business boost and are still important; here are Jean Simmons and Paul Newman in M-G-M studios.



GLAMOR CAPITAL—Vine Street, looking toward Hollywood Boulevard; at left, the new Huntington Hartford Theater is bringing the legitimate theater to the movies' front door.

to redevelopment is vital if a city is to remain flexible in responding to future needs.

- Constant, widespread use of the auto creates an insatiable appetite for parking space. When plants and offices ran out of it, they simply had to disperse. Los Angeles' insurance companies (44 home offices alone), for example, have strung out 10 miles along Wilshire Boulevard and Sixth Street in search of parking space. Today, factories are being located on freeways instead of rail lines or transit routes.

No company would think of putting up a new plant or office building without adequate parking space.

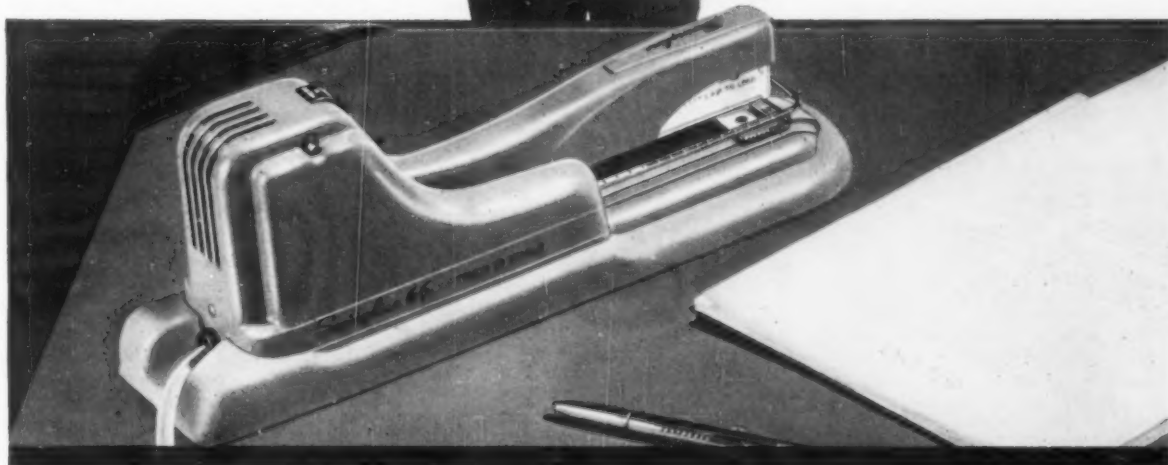
- The mobility of labor has encouraged companies to direct new growth into outlying areas such as the

San Fernando Valley, the San Gabriel Valley, and Orange County.

- **Mobile Ant Hill**—This dispersion is possible because Angelenos think nothing of driving 30 miles to work, 20 miles for a business luncheon, maybe another 25 miles at night to play bridge—and all at an average speed of 40 mph. From the air at rush hour, Los Angeles looks like a giant ant heap, with autos moving in all directions—people live in the south end of the county and work in the north, and so on.

The ant hill these people are so busily traversing is called "L. A." for short. Actually, the term takes in not just Los Angeles city's 455 sq. mi., but the whole 4,080 sq. mi. of Los Angeles County plus the 786 sq. mi. of adjoining Orange County—the Los Angeles-

what? staple electrically!



**NEW, ELECTRIC "Swingline® 66" WILL
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News Briefs

from SPARTON Corporation



Unveil Sparton Packaged Remote Controls

Announced last week: "packaged" remote controls

At the American Water Works Convention in Atlantic City last week, Sparton Controls Division unveiled the first standard packaged valve remote control system ever offered.

Combining to demonstrate this new system, called Val-Con, were Sparton Controls, A. W. Cash Co. (operating mechanism) and S. Morgan Smith (valves). This system results in reduced operating costs for public water works, pipelines, and for industry. This packaged device controls valves at one or more key locations in central station operation, automatically maintains position, and can be installed without special engineering or fabrication costs.

The master control unit can be located a few hundred yards from valve and "positioner package" or many miles away. It operates over standard telephone, telegraph or private lines. By increasing efficiency through centralized control of valves, while decreasing supervisory and operating costs, the system pays for itself in less than one year.

Although primarily designed for public water works and pipelines, Val-Con is ideal for any application requiring precise automatic positioning and indication and remote control. These include reservoir, altitude and throttling plus many other applications.

For complete information on Sparton's Val-Con write: Sparton Controls Division, South Horton St., Jackson, Mich.

New work space for existing plants

At the National Materials Handling Show in Philadelphia this month, Allied Conveyors Division displayed publicly for the first time a completely automatic conveyor system which operates high overhead, serviced by work station elevators (see below) that occupy just six feet of work area each.

In effect, this new system, called Trans-



New Allied Conveyor Increases Work Area

Free, adds considerable productive space in existing plants simply by taking product handling upstairs out of the way. With Trans-Free too, work can be loaded to, from or at any predetermined number of desired stations. Load timing, transfer, storage, control, dispatching and selection, all are automatic.

For your free copy of a complete, illustrated brochure describing the many cost-saving advantages of Trans-Free in detail, just write Allied Conveyors, 17333 Healy Ave., Detroit 12, Mich.



Long Beach Metropolitan area. Population is 5,880,000, a sixfold increase since 1920. (Los Angeles City has 2.3-million of the total.) By 1970, the area is expected to reach 8-million.

II. What Made It Grow

How did a place that started with no river, no water supply, no great supply of minerals, no natural port, and that wasn't located on any great trade route, accumulate such a huge population in so short a time—and keep them all alive, let alone developing any civic patterns for other cities to look at?

The answer, of course, is climate, and the lure of the wide open spaces. Climate made a city where geographically there was no other reason to have one. People came for the climate, because they thought it was a good place to live. So they built the kind of city where people would want to live for the sake of living—not just because it was the place for the job or the business. Whatever else they needed to supplement the climate, they went out and got—going 200 miles at first for water, then 300. They built a harbor on the mudflats 25 miles from downtown.

• **Self-Generating**—After a while the growth became self-generating. The gathering of people who required goods and services created jobs—and jobs attracted more people. This in-migration accounted for most of the growth—seven-eighths of the 590,000 population increase in the 1930s, three-fourths of the 1.2-million growth in the 1940s.

The bumper crop of postwar babies almost caught up with the inflow but after Korea the flood from outside redoubled in force. It didn't swamp the job market, though—there are only 80,000 unemployed today, against 100,000 at the wartime peak in 1945.

• **Big Push**—But to swell even a climate-happy city like Los Angeles to its present oversize dimensions requires a more dramatic boost than this process of everybody taking in everybody else's washing—however full the laundry basket may get. What gave Los Angeles its real boost was World War II and Korea.

Up to World War I, Los Angeles lived largely on sunshine, oranges, and

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Formerly The Sparks-Withington Co.



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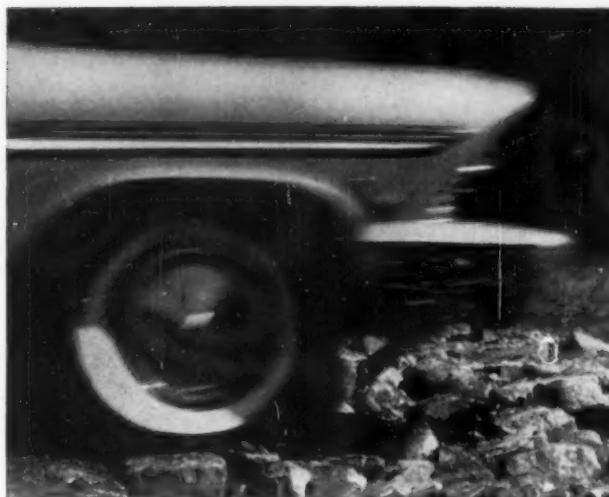
Only Plymouth has Torsion-Aire in the low-price 3. Plus greater interior roominess, by *far* the biggest trunk, Total-Contact Brakes (which last thousands of miles longer), and foolproof Push-Button Driving.

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If your fleet is

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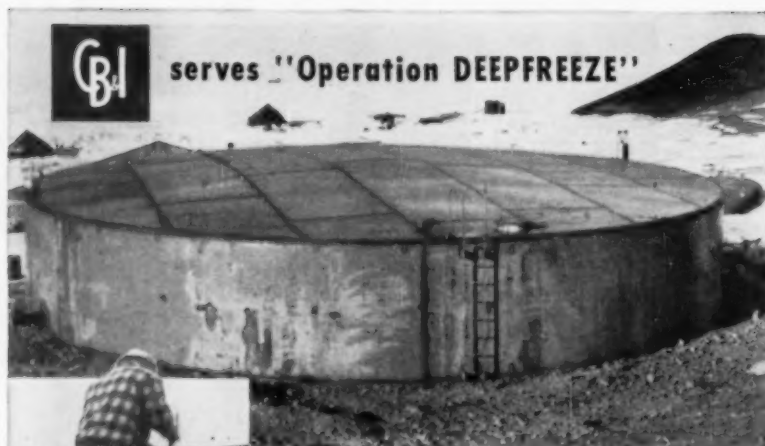
Puts bumps out of business. Reduces driver fatigue.



Keeps the lean out of curves. Keeps sales curves rising.



Stops "nose dive." Puts the brake on costly maintenance.



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Out where the Pacific Ocean ends in the South, Ross Sea, on the shore of a continent twice the size of the U.S., CB&I workmen supervised the erection of diesel oil and gasoline storage tanks, fabricated at our Greenville, Pa., plant.

One of the Horton® tanks, 48 feet in diameter by 8 feet high and designed for excessive wind and snow loads, was completed in 54 hours after a tank ship, bringing precious fuel, started leaking.

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Top: Built by Navy and CB&I crew on volcanic ash, Horton tank holds 6,000 barrels of aviation gas, is 74 feet in diameter. Left, above: CB&I specialist fits up tank shell for welding.

B13-2/3



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the infant motion picture industry. Between the World Wars came the oil industry, an influx of branch plants of big Eastern companies—and most important of all, the development of the aircraft industry.

World War II brought phenomenal growth to the Los Angeles aircraft industry, made Los Angeles a top war-plant town—and provided the basis for the postwar boom (BW—Aug. 10 '46, p21). Los Angeles businessmen, determined to keep industrial workers in the area, began long before the war's end to plan for peacetime industry. It turned out they didn't have to push very hard. By this time the Los Angeles market had grown so big that industries of all kinds were glad to rush in.

Korea boomed aircraft again, and brought in the electronics industry, led by Hughes Aircraft Co., which grew into a giant with \$200-million in annual sales. Los Angeles became a center of specialized electronics.

III. Business Balance

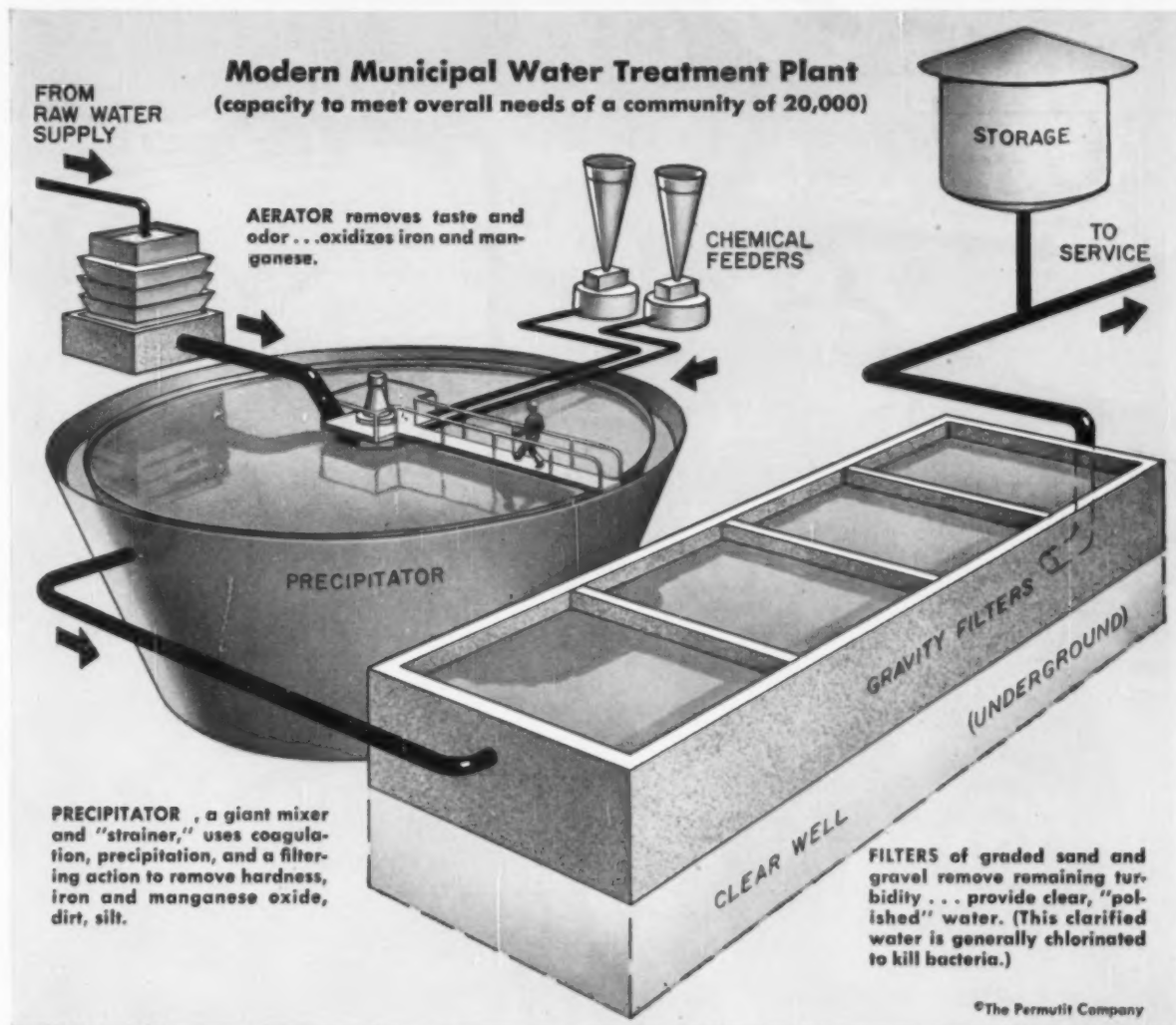
Los Angeles got a long start toward its present spread-out, motor-borne existence from the fact that it began as a place to live, then drew industry to it to help it live—rather than the other way round. The nature of its industrial and business setup helps to keep things going in the same spirit.

Industrial employment since the war has soared at a fantastic rate compared to the country as a whole—a 112% increase for the Los Angeles metropolitan area from 1947 to 1956, against 17.5% for the U.S. over-all. This growth of industry has boomed Los Angeles to its present spot as third manufacturing center in the nation.

Besides its high rank in aircraft and electronics, Los Angeles has become the key city in missiles. The chief of the Air Force's ballistics missiles programs, Maj. Gen. Bernard A. Schriever, makes his headquarters near Los Angeles international airport. Over-all technical guidance is vested in a Los Angeles company, Ramo-Wooldridge Corp.

• **Balance**—Despite the boom and the apparent concentration in aircraft and electronics, Los Angeles' economy is

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Somewhere on Chesapeake and Ohio's 5,100 mile system a waybill is made out, a car passes a junction point, a passenger buys a ticket, a mechanic requisitions a dozen bolts from a storeroom, a brakeman works an hour overtime, an investor buys a hundred shares of Chessie common.

By the million, such bits of information are flashed to data processing centers where they are translated into the language of tape and punch cards. Machines quickly classify, digest and analyze this information. Thus, up-to-the-

minute reports on any phase of C&O operations are always available as a guide to management decisions.

Electronics speed up Chesapeake and Ohio service in many ways. Closed circuit television gives the yardmaster a close-up view of what is going on at the other end of the yard. Radio and loudspeakers give him efficient control of the entire operation.

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Out on the road, trains maintain contact by radio with other trains and with dispatchers. Electronic switching enables one central office to control all train movements over hundreds of miles of track.

High-speed communications enable C&O to have final figures on its monthly operations on the first day of the following month; its annual figures on the first working day of the new year.

Chesapeake and Ohio is a forward-looking organization; quick to adopt new methods and always ready to invest in improvements to better serve America's industry. Chessie's railroad is growing and going!

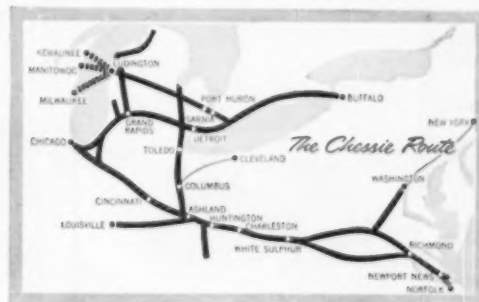


Switches and signals are electronically activated from this control board, resulting in increased utilization of its roadway equipment for better service. C&O has over 1,800 miles of Centralized Traffic Control trackage.

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perhaps better balanced than that of any other big city—and the Chamber of Commerce and other powers are bent on keeping it that way.

It's certainly no one-industry town. Only 9% of the labor force is in the aircraft industry, compared to Detroit's 18% in motor vehicles and Pittsburgh's 17% in primary metals. Plenty of Angelenos get their paychecks from a string of other industries—motion pictures, of course, and food products, apparel, furniture, printing and publishing, chemicals, ceramics, fabricated metals, machinery, motor vehicles.

This diversification helps the area build up in dispersed centers, instead of a single towering mass.

• **Non-Industrial**—What's more important, all these industries together still don't dominate the economy. The biggest proportion of jobs is in distribution of goods and services—and it's a bigger chunk than for the U.S. as a whole, 63% against 54% nationally. L. A. has become the distribution center as well as industrial center of the Pacific Southwest.

There are also some pretty big payrolls in finance and insurance. And Los Angeles is becoming more of a headquarters town, as outside companies move in their central offices, and expanding homegrown industries set up branches or plants elsewhere.

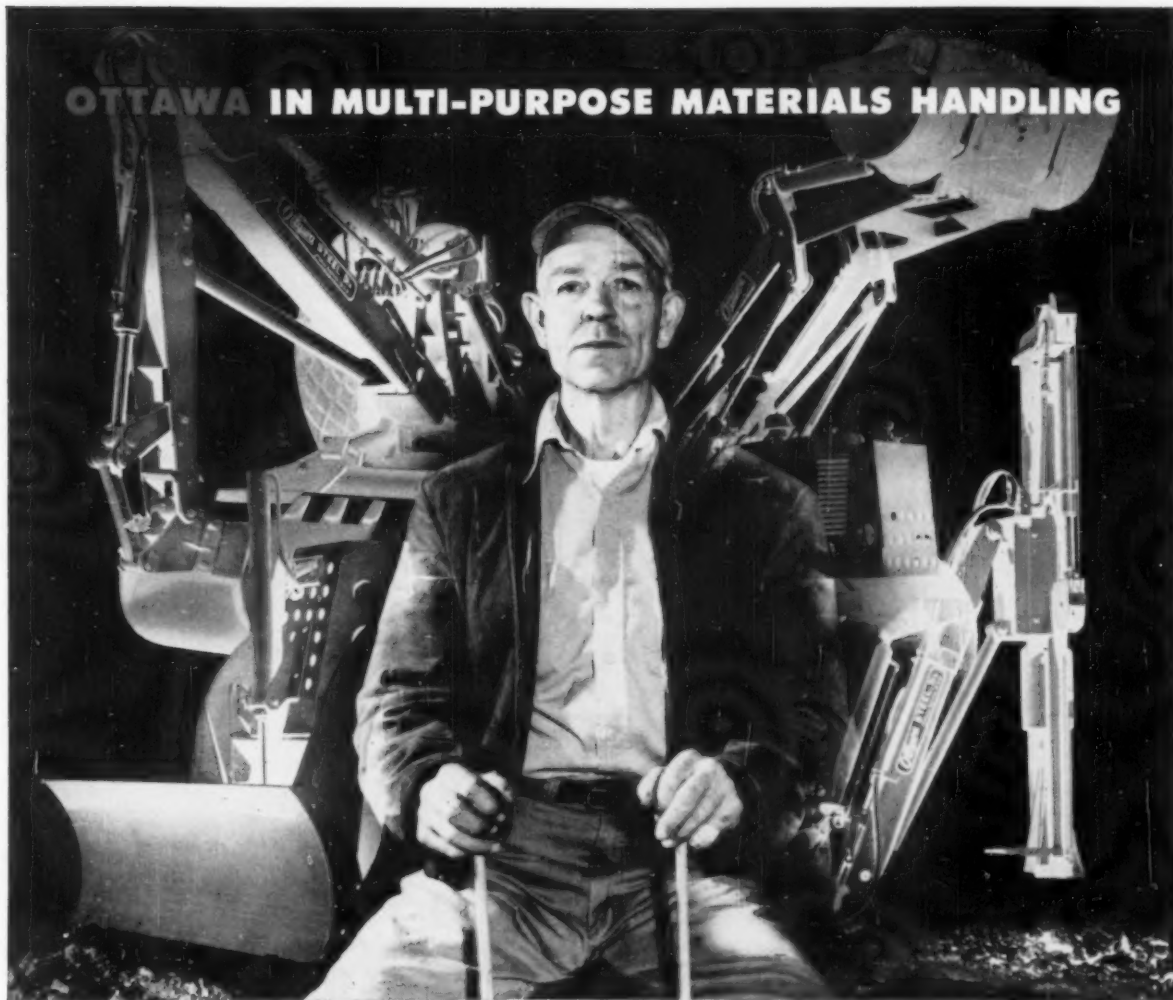
When you jot down the high spots of the Los Angeles economy, you can't overlook tourists—a \$500-million-a-year business—or agriculture. Los Angeles County, not so many years ago, was top county in the U.S. in dollar value of its crop. With the conversion of some croplands to tract houses, it has slipped to third place—though it's still the top-value dairy county.

IV. It's in the Air

When a city develops as rapidly as Los Angeles, it grows a new personality that's influenced by something more than just size. When people pull up roots and move to a new city, they give release to new ambitions, new ideas that might never see the light at home, with ancestors gazing down from the walls.

Add to that the buoyant effect of a favorable climate, and the results are

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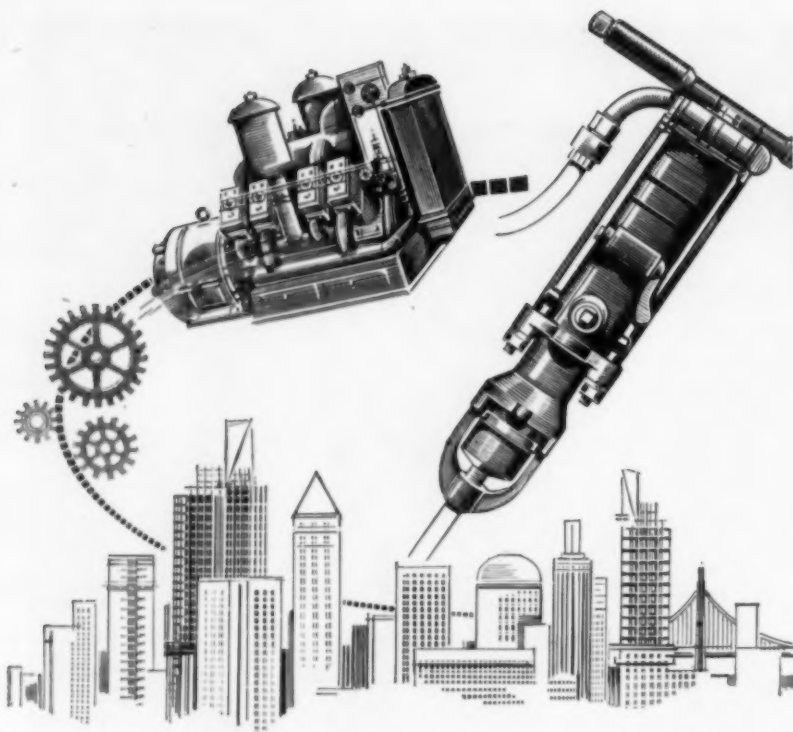
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that all goods will arrive intact and ready for use. This in itself affords valuable savings not to mention considerable peace of mind.

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likely to show up in an energetic type bursting with confidence, warmth of spirit, and a general sense of contentment. The Los Angeles air stirs businessmen to tackle problems from a fresh viewpoint, and they are more than likely to come up with new solutions. They tend to be neither wild plungers nor hidebound conservatives, but show a high degree of individual self-reliance (BW—Oct. 10 '53, p118).

This sort of atmosphere breeds a different kind of creativity from what you find in settled, traditional areas—not so much the creativity of art as the creativity that finds something new to tackle and make a go of.

There seems to be something in the Los Angeles climate, too, that nourishes an enthusiasm and exuberance that sets off the Angeleno from his otherwise not too dissimilar northern California neighbors. It's this natural exuberance and zealotry—perhaps reined in a bit now—that chambers of commerce elsewhere sometimes envy—when they don't get too close to the loud end of the horn.

- **High-Income**—One reflection of Los Angeles creativity is the maintenance of high per capita income—one-fifth higher than the national average. Another is that a heavy percentage of manufacturing workers are in high-talent, high-pay industries, such as aircraft electronics, instruments, motion pictures and TV production.

- **What Life is Like**—The lack of inhibition and restrictions not only makes for unconventionality, but extends through business and social life. As Henry B. Grandin, an investment specialist in Los Angeles since 1919, describes it, "The main thing about Los Angeles is that you can go into business at any level, and find any social level you like."

That doesn't mean there are no gradations, groups, and sets in Los Angeles society—but it does mean a greater number and variety of opportunities than most places offer.

And the advantages of Los Angeles living seem to filter pretty far down the income scale.

Take the current phenomenon of swimming pool apartments. Paddock Pools estimates that 60% of new apart-



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Permanent "K" factor average, 0.25. Avg. density, 1.8 lbs. per cu. ft. Pleasant. No odor. No food value. Fabricates with common tools. Does not crumble or settle.



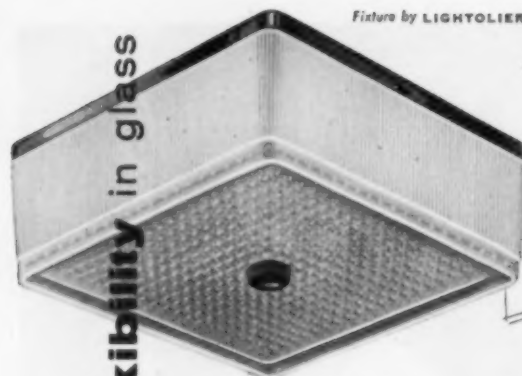
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ments, most of them with around 40 units, have swimming pools. They're everywhere—close to downtown and in the suburbs—and all kinds of people live in them, from clerks to executives. Three or four office girls will share an apartment—and they're in the swim.

The same preoccupation with suburban living and the outdoor life affects working conditions. Plants are mostly small and well-lighted. Some electronics employers have gone all-out in this direction—Helipot Div. of Beckman Instruments has a new plant on a mesa overlooking Newport Beach. In labor relations, Los Angeles has traditionally been an open shop town.

Minorities—Mexican, Japanese, Negro—are not confined to "poor" sections, and the city claims it has no really depressed areas or groups—though perhaps some residents wonder what the definition of "depressed" is. Some areas have fallen behind; one blighted area, Bunker Hill, close to "downtown," is in the planning stage for redevelopment.

• **Cultural Push**—Though Los Angeles is sometimes painted as a cultureless void, you couldn't call it that today. Besides the grandiose Hollywood Bowl, now revived and profitable, there's the Civic Light Opera; and the Los Angeles Symphony was sold out this year. There's a profusion of community symphonies and little theater groups, a highly successful classical music radio station, KFAC—even a series of modern music concerts that has a reputation beyond Los Angeles' borders.

Yet many, especially TV station owners, say the town's taste, by and large, still runs to action movies and Westerns. Angelenos are great race track fans, and, for the crowd, a weekend in Las Vegas tops everything.

• **Decentralized Politics**—As in so much else, Los Angeles lacks the centralization of political power associated with so many cities. In the county, there are 52 incorporated cities besides Los Angeles. To be sure, there's an inner circle of prime movers in area affairs—a couple of dozen successful businessmen and others—originally made up mostly of downtowners but now taking in the suburbs and newer industries.

This group's main dedication, how-



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You'll find them "accidentally" whittling away at profits in many ways. Check your own operation...are reject rates reducible...have you need for continual rework...are you afflicted with machine downtime...how about scrap losses from defective materials, are they there, too?

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moral: Oil can keep things running smoothly, but it takes Magnaflux Test Systems to keep them running profitably!

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ever, is not the attainment of political power but civic improvement and the solution of area problems.

V. How Far Will It Go?

As such men look ahead now, they see a large portion of Los Angeles and Orange Counties already filled up by the splurge of the last decade—with a question mark as to how far the growth will spill over.

Some more exuberant Angelenos say that what is now called L. A. will eventually stretch 200 miles from Santa Barbara on the north to San Diego on the south. But even some men who are the most expansive dreamers in other things concerning Los Angeles believe there are certain natural geographic limits—particularly the mile-high mountains to the east. And in Orange County there are the canyons separating it from San Diego County, and an almost solid line of great ranches whose owners aren't anxious to sell.

Future population growth in Los Angeles is likely to come more from natural increase, which is now catching up with the inflow. In the five years 1960-65, the natural increase is expected to reach 520,000—double the immigration of 260,000 that's looked for in that period.

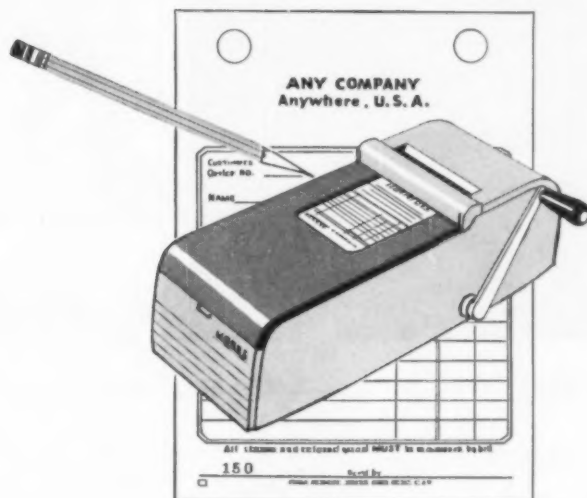
• **Consolidation**—These are some of the portents of the consolidation phase that Los Angeles seems to be entering. You see other signs of it, too:

• For the first time in 25 years, the central area—the five-mile radius from downtown—showed up this month on the city planning map with the black pins that mean population increase. In 1956, construction of multiple-unit dwellings increased 150% while the number of new single-unit dwellings declined.

• Los Angeles is even beginning to build upward, since last November's vote to eliminate the 150-ft. height limit. There'll be a 20-story apartment building on the Sunset Strip, a 22-story office building downtown, possibly others. This would require a change in habits. Angelenos refer slightly to people who live in tower apartments as "cliff dwellers," and the first tall apartment and office buildings under

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the old limit were slow in filling up. So buildings over 20 to 25 stories aren't likely to become numerous.

Besides the multimillion-dollar Bunker Hill redevelopment plan, there is a private \$51-million civic auditorium and music center project, and the Schine Enterprises have ambitious plans for redeveloping the 27 acres around the Ambassador Hotel. Some see the old "downtown" growing all the way to the Ambassador district.

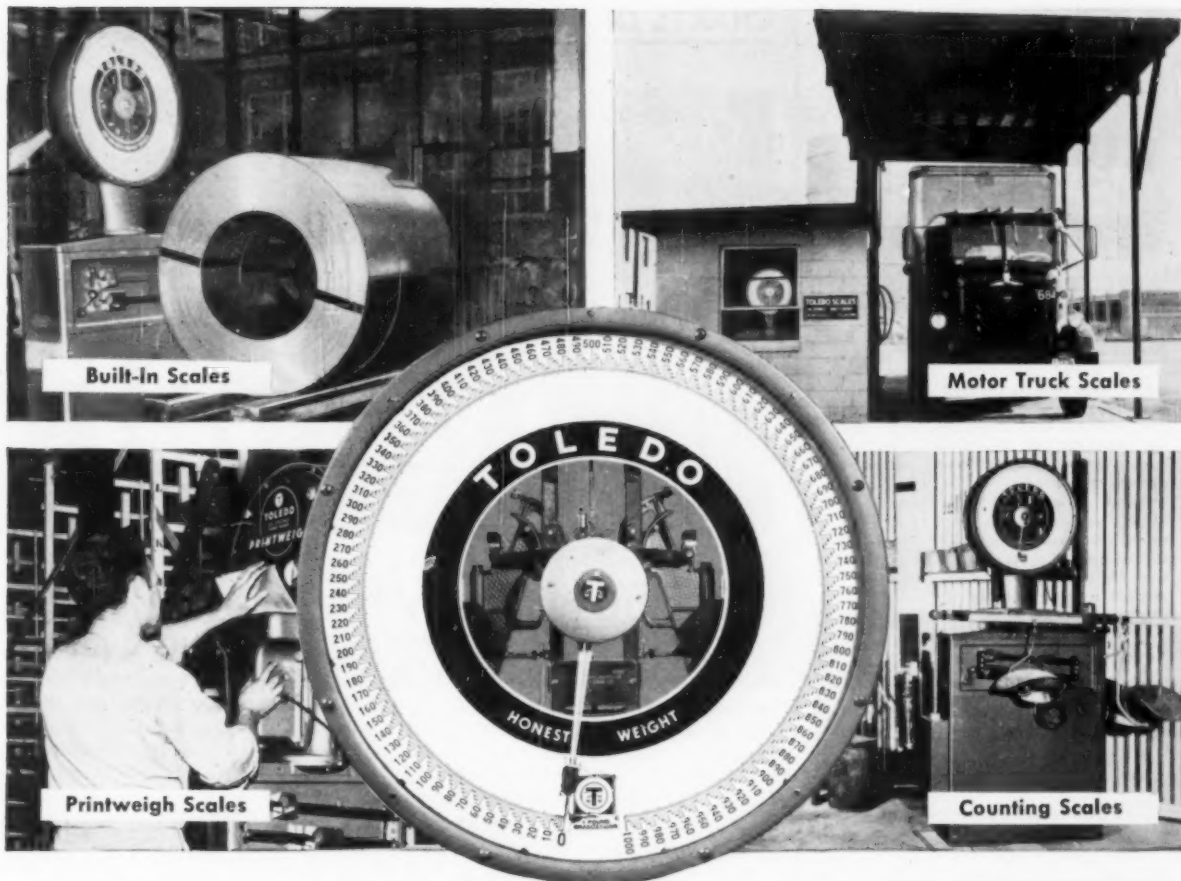
Another sign of building closer in—the hills around the city are alive with construction. Retired city engineer Lloyd Aldrich sees light industry filling up the San Fernando Valley, with much heavy industry along the Los Angeles River to the harbor. The Port of Los Angeles embarked on a \$101-million improvement program this year.

Problems—Because traffic is expected to double by 1970, some Angelenos worry whether freeways present and planned can handle it all. The freeway program calls for tripling the present 204 miles. Now some freeways have to handle far more traffic than they were planned for. In five years, with a unified system, experts look for jamless travel 24 hours a day.

Still, there's a possibility that some sort of mass transportation will have to be added to relieve the freeways—possibly a monorail system. Yet the characteristics of the area limit the usefulness of a mass transit system—decentralization means less well defined commuting patterns.

By 1970, too, Los Angeles will probably need an additional water supply, though it has no water shortage problem now. It's looking for a new source in the Feather River Project.

Los Angeles' most immediate—and best advertised—problem, of course, is the smog, a product of automobile exhausts, industry, and backyard incinerator burning. Industry has spent millions on controls; and the incinerators will give way next fall to citywide rubbish collection. That leaves the automobile—the Angeleno's best friend—and the hope of a cheap exhaust smog eradicator everybody would have to use. But, as a Midwestern newcomer once said of Los Angeles, "Even with the smog, it sure beats Indiana." **END**



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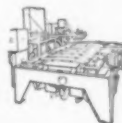
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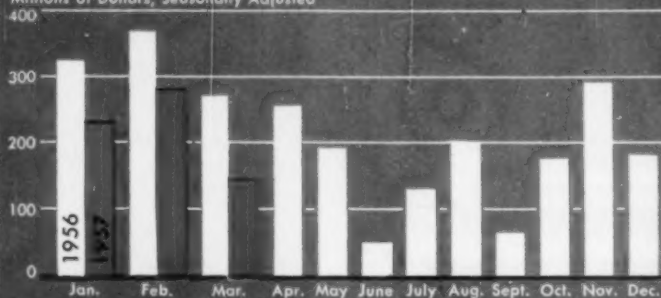
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CHARTS OF THE WEEK

Changes in Installment Credit

Millions of Dollars, Seasonally Adjusted



Data: Federal Reserve Board.

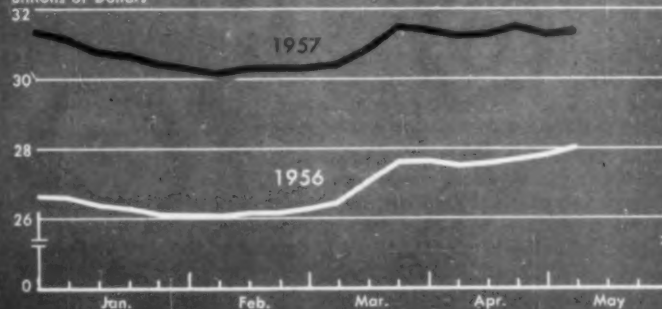
Less Buying on the Cuff

There were gains in consumer installment credit outstanding in March, but they continued to trail the increases shown a year ago. After seasonal adjustment, installment credit outstanding climbed \$139-million in March, 1957. This compares with a seasonally adjusted \$273-million increase in March, 1956.

The March increase of \$139-million breaks down this way: \$80-million in automobile paper, \$47-million in personal loans, \$3-million in other consumer goods paper, and \$9-million in repair and modernization loans. Last year, the March increase for automobile loans was \$147-million; for personal loans, \$84-million.

Business Loans

Billions of Dollars



Data: Federal Reserve Board.

Market Is at a Standstill

This year's market for business loans is quite different from last year's. Last year, most businessmen wanted money to expand both plant and inventory. This year, demand for loans has been much less. As a result, business loans outstanding as of May 2—according to reporting Federal Reserve member banks in leading cities—are at about the

same level as at yearend 1956. A year ago, in the comparable period, they rose \$1.4-billion.

The traditionally heavy tax borrowing in March didn't have much effect on loan totals, because the reduction in loans during January and February was larger than usual. So March figures only restored loans to the level re-



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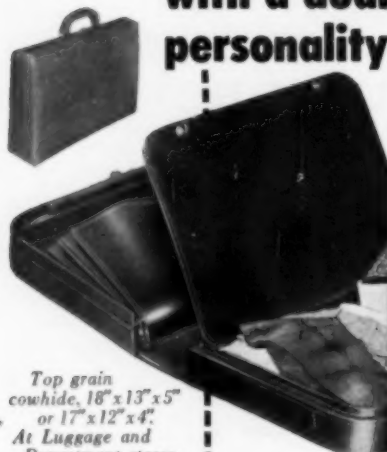
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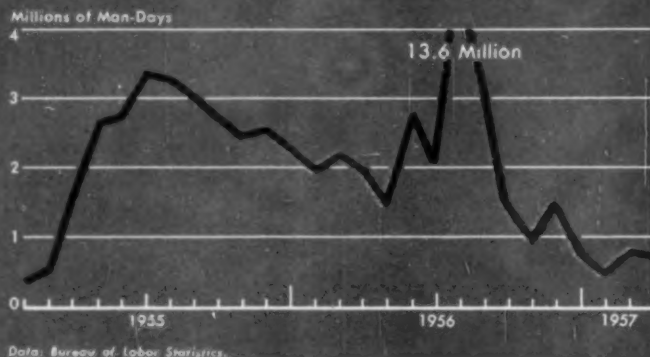
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corded as the year began. Last year, about \$1-billion above the level at the March tax borrowing pushed loans beginning of the year.

Man-Days of Idleness

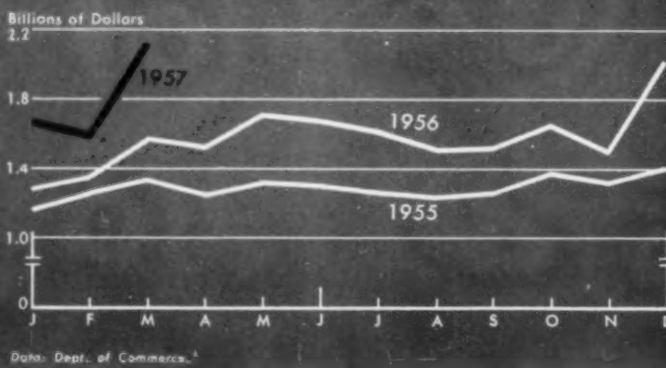


Relative Labor Peace Prevails

The first quarter of 1957 has been one of labor's most peaceful periods in eight years. There were fewer strikes beginning, fewer workers involved in strikes, and fewer man-days of idleness resulting from strikes in that period than in any similar span since 1949.

Man-days of idleness attributed to strikes during March dropped to 775,000 from February's 825,000 and from 2-million in March, 1956. Less than 0.1% of the estimated working time in all industries was lost because of strikes.

U.S. Exports



Foreign Shipments Soar

U.S. exports reached a record high of \$2,149,000 in March. This is nearly 8% more than the previous high of \$1,993,000 in December, 1956, and it brings total first-quarter 1957 exports 28% above the year-ago period.

The March total was 34% above the comparable figure for the same

month in 1956 and 33% above February. The sharp increase from February to March can be attributed in part to the February dock strike. Other causes for the abrupt rise were increased sale of agricultural commodities abroad and emergency oil shipments to Europe.



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HOUSEHOLD FORMATION—the increase in families or individuals occupying separate dwelling units—is the basic long-run factor around which residential building has swung. It's down now—and so are **HOUSING STARTS**. This helps explain . . .

Nonfarm Housing Starts

Annual Rate Nonfarm

Household Formation

Why the Housing Industry Wants

● Homebuilding doesn't have to depend solely on the rate of family formation. It can find business in replacing housing that is substandard, over age, or making way for highways or urban redevelopment.

● Some experts foresee also a revived market in rental housing—both homes and apartments.

● So the outlook isn't necessarily so dark as the household formation trend might suggest.

AS EVERYBODY KNOWS, homebuilding has been in a decline since the end of 1954, and a lot of businesses are worried about it (BW—May 4 '57, p136). Part of the blame for the slump goes to tight money, yet there are signs that housing is suffering from a more fundamental ailment: a drop in basic demand.

As the chart shows, the most fundamental of the factors that make up demand—household formation—is on the downgrade and may continue on this course at least through the early 1960s. To deal with this switch, the housing industry may have to shift into a different kind of building program. Up to this point, the mainstay of homebuilding has been the single-family house,

intended for sale to an owner-occupant. The future for the housing industry lies, according to at least one new study, in building for a growing rental market as well as in upgrading the nation's housing standards.

Meanwhile, the decline in seasonally adjusted annual rates of building continues from the December, 1954, level of 1,458,000 annual starts (close to the best months of record-breaking 1950) to an annual rate of 880,000 this March.

In the long run, the number of housing units that are built is closely matched with the number of social units that are formed—not only family units but also households such as two or more career girls who join in renting

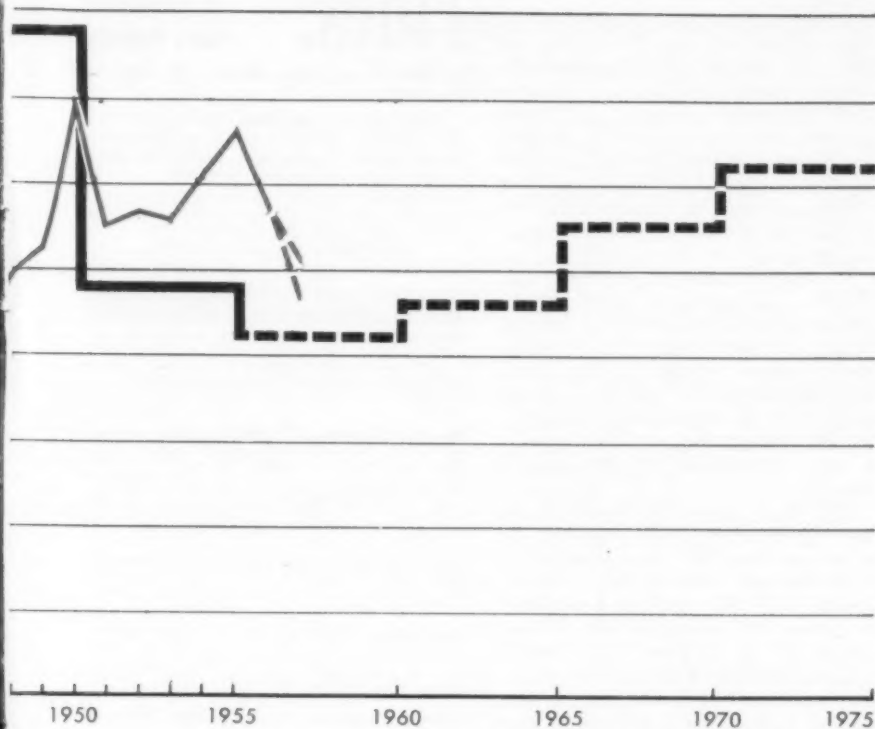
a house or apartment, or single people living alone.

In 1910-55, for example, 28,164,000 new households were formed, and 26,223,000 dwelling units were built. The 2-million gap was covered chiefly by converting big houses into apartments.

Over a shorter span, of course, housing starts will vary considerably from the rate of household formation. If they run higher, the effect is to reduce overcrowding of homes, to retire substandard housing, to convert residential to commercial property. If housing starts lag behind household formation, families have to double up in dwelling space, and housing standards go down.

• **Averaging Out**—In 1951-55, only 4,885,000 nonfarm households were formed, yet 5,871,000 dwelling units were built. That's because housing was still catching up with the record peak of family formation in the immediate postwar years, when war-delayed marriages piled up, the marrying age dropped, and migration from farms to cities was at its heaviest.

Now family formations have slowed down, with the maturing of the short baby crop of the Depression. Household formations have dropped from an average 1,525,000 a year in 1947-50 to a mere 833,000 a year in 1950-55. And



Data: Dept. of Labor, Bureau of the Census, BUSINESS WEEK Estimate.

a New Kind of Boost

the Census Bureau estimates an annual rate of 521,000 to 778,000 in 1955-60.

The U.S. is at the bottom of the household formation curve right now, but it will be years before the rise is pronounced. The Census Bureau expects a maximum annual rate of 861,000 new households in 1960-65; 1,047,000 in 1965-70; 1,200,000 in 1970-75. The 1,525,000 rate of 1947-50 isn't even in sight.

However, the rate of growth in non-farm households should be raised by continued migration from the farms.

• **Raising Standards**—Homebuilding can also be stimulated by improvement of housing standards through government action. So-called "housers" who advocate this kind of action regard the increase in number of households as only the starting point in estimating how many housing units we should build.

Experts say that between 250,000 and 300,000 housing units disappear each year from the housing supply, through obsolescence or demolition for new projects. If we don't add at least as many dwelling units to the household formation rate, housing standards must deteriorate.

The rate of loss is expected to go higher as highway construction and

urban renewal programs step up their pace. To raise housing standards, the more enthusiastic "housers" argue that the U.S. should build 2-million non-farm dwelling units a year. More moderate housers generally settled for an annual rate of 1.5-million housing starts—which is still better than the 1950 peak year.

I. Hard Facts of Money

Any social consideration of how much residential building the nation needs is bound to run up against the stony economic facts of life. However much an annual rate of at least 1.5-million housing starts can be justified on public welfare grounds, it's true that the rate is currently dragging along well below the 1-million mark.

The reasons are clear:

- The rise in interest rates through the tight money policy and heavy business demands for capital is pulling funds away from FHA and VA mortgages, with their pegged interest rates. Housing starts financed by conventional mortgages have held steady for two years at 630,000 a year, but VA starts have dropped from more than 400,000 a year in mid-1955 to an annual rate of less than 250,000 last quarter, and

FHA starts from 300,000 to 180,000.

- The pattern of savings has shifted, due to the pull of higher interest rates. Robinson Newcomb, Washington housing economist, calls this the single most important cause of the housing slump. Savings banks and savings and loan associations, a major source of mortgage funds, are getting a smaller share of personal savings. Insurance companies, another major source, are still getting their share but are using more of it for business loans.

- Residential construction costs keep climbing. In January-February, costs ran 74% higher than in the same months of 1955. Wages are rising far faster than productivity; heavy demand from industrial and commercial construction keeps prices of building materials up despite the housing slump.

- Land costs are rising, too, as suburban sites get scarcer and as zoning laws are tightened to screen out the mass developments that throw a burden on public services—especially schools—out of all proportion to their tax yield. On bigger and more expensive lots, builders put up bigger and more expensive houses. And they are forced to provide more community facilities—streets, sidewalks, sewerage, playgrounds, and even schools—at costs that they tack onto the selling price of their houses.

- With the average sale price of a house now around \$16,000—more than \$3,000 higher than 1954—builders suspect they are losing their mass market. They also blame the shelter magazines for raising consumer tastes above consumer budgets.

- Meanwhile, the money squeeze on VA and FHA loans hits the big housing developer hardest. And he, by large-scale assembling of land and materials, was the one who introduced the only real technological improvement in building since the war. It also hits residential builders in general more than other builders, because most of them are under-capitalized.

II. Rental Housing

The building of houses for rent has been hit especially hard. Building of single-family homes didn't turn down until 1955, but rental housing peaked at 200,000 units in 1950 and has since been cut in half. Builders usually blame this on Congressional "windfall" investigations and the cautious FHA policies that followed.

Basically, though, investors' coolness to rental housing stems back to the troubles of the 1930s, followed by rent control through the 1940s. Many landlords got out of the business during and after the war when rents were controlled but selling prices were not. As a result, rental housing in the sub-



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urbs is only a fraction of its prewar availability.

• **Under Study**—Louis Winnick, economist of the Ford Foundation-sponsored American Council To Improve Our Neighborhoods (ACTION), concludes that long-term earnings on rental property have been low. This, he finds, "is the most important reason why life insurance companies have not only withdrawn from the new construction market but are also disposing of existing holdings."

A research team headed by ACTION's vice-president, Prof. Martin Meyerson of the University of Pennsylvania, and backed by advisory groups from industry, finance, government, and universities is making a broad study of the housing industry's troubles. Results will be published next year in a series of volumes by McGraw-Hill Book Co.

The study covers all phases of the housing industry, and solutions for many problems will be recommended.

• **A Revised Market**—ACTION research is already pointing some ways to revive the ailing industry. Winnick's rental housing study, for example, suggests that homebuilding for rent may play a substantially greater role than it has since the 1920s. This trend, says Winnick, is based on shifts in the U.S. social and economic structure:

- The bumper crop of babies soon after the war will swell the 20-29 age group during the 1960s, push up the marriage rate, and increase demand in the rental market—since newlyweds tend to be renters at first.

- At the same time, there will be a marked increase in the number of older people and single people who will prefer to rent smaller quarters.

- More wives will be working, and more couples will be looking for close-in, easy-to-maintain apartments.

- The white-collar class is growing and it wants good housing in the suburbs or in town. Yet families must expect to move around the country more, so they hesitate to buy—especially in tight money conditions.

- The steep rise in the price of suburban land will cut further into low-cost single-family housing. High site costs in the past have meant a rise in apartment house construction.

Winnick doesn't see the trend toward rental housing as anything that's automatic. All it does, he says, is to create an opportunity for builders. To cash in on this opportunity, as on the coming rise in household formation in general, builders will have to work out the financing, the reducing of costs, the design and merchandising of houses and apartments to meet the tastes and pocketbooks of their potential customers. **END**

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Peace Doesn't Come Cut-Rate

An eminent historian once said, "The only thing we learn from history is that we learn nothing from history." The current attack on foreign aid lends much support to this thesis.

Just in the past 25 years—to go back no further—history has offered us a series of lessons. Manchukuo, Ethiopia, the Sudetenland, Munich and on through the Communist coup in Czechoslovakia, the Chinese thrust into Southeast Asia, and even Suez—all showed us that disunity and irresolution among allies may be disastrous. Americans particularly should have learned that the quest for isolation from foreign allies does not lead to peace. It simply exposes those allies to aggressive wars in which we are inevitably involved. Then the cost in lives and money becomes fantastically greater than if a strong alliance had been preserved.

Now, once again, we see opportunistic politicians, egged on by a tax-weary public, preparing to take steps which may cause a grand alliance to fall apart. For the fundamental purpose of U.S. foreign aid—often damned as a sort of international WPA—has been to build up the military and economic strength of the free world against an aggressor even more tricky and powerful than Hitlerian Germany.

The first great Communist threat was against Western Europe—and it came in the form of internal subversion that fed on economic weakness and mass poverty and hunger. The Marshall Plan effectively frustrated it. So the Communists, seeing that Europe would not fall to them from internal collapse, made their threat a direct military one. Greek-Turkish aid and NATO again stopped them.

Frustrated in their designs against Europe, the Soviets and their Chinese allies shifted their attack to the Asian theater. The door was slammed in their face in Korea and Vietnam. So they have again switched strategy—this time to an economic and political offensive against the poor nations of Southeast Asia and the Middle East.

Foreign aid—economic and military—has thus become in the postwar period an absolutely indispensable adjunct of U.S. foreign policy. Without it, our present foreign policy would be speeches and the threat of atomic holocaust.

Powerful arguments could have been made for an even higher figure than Pres. Eisenhower's original \$4.4-billion aid request, if a larger figure had been deemed essential by those in a position to calculate the costs of U.S. security. Now the President has reduced the original aid request by \$520-million to \$3.9-billion—but apparently without changing future programs in any important respect. In the fiscal year now ending, deliveries of military equipment have run about \$500-million lower than

earlier estimates. Assuming that Congress will reappropriate funds to cover these deliveries, the Administration has accordingly reduced the new aid request by a like amount; so the lower aid request of \$3.9-billion should not cause any actual shortfall in military equipment deliveries in the coming year.

The horrendous complexities of foreign aid—and the fact that it gets no backing from any strong political pressure group or lobby—may be its undoing. And this might prove to be disastrous to U.S. interests. We hope that the President, in carrying his fight to the people, will arouse an apathetic public to some understanding of the fact that the price of peace is power and unity among the nations of the free world. Surely the past should have taught us this much.

Upgrading Talent

The tremendous demand for talented personnel—especially engineers and scientists, has been a constant plague to industry in recent years. Especially critical is the need for graduate engineers. Yet the percentage of engineers taking graduate degrees has been falling off. One reason is that fewer engineers with bachelor's degrees have been willing to give up the pay industry offers in exchange for several years of post-graduate work.

This poses a serious threat to both government and industry. For it's just this type of personnel that is needed so badly as our research and development laboratories push out further and faster beyond the old frontiers of technology.

Industry is aware of this problem and has not been sitting idly by. Some companies have tried to alleviate this problem and encouraged their employees to take graduate work by offering to pay part or all of the cost.

Such programs have worked out well for those employees who live or work close by graduate schools. Now industry is moving in to help the number of employees who are not so fortunate.

The most recent example of such a venture is the announcement that Bell Telephone Laboratories and New York University will establish a graduate facility adjacent to Bell's Murray Hill (N. J.) research laboratory. Bell will build the classrooms and faculty offices, will allow certain of its employees to attend courses on company time, and will pay all costs of instruction. New York University will operate the graduate facility and supply the faculty.

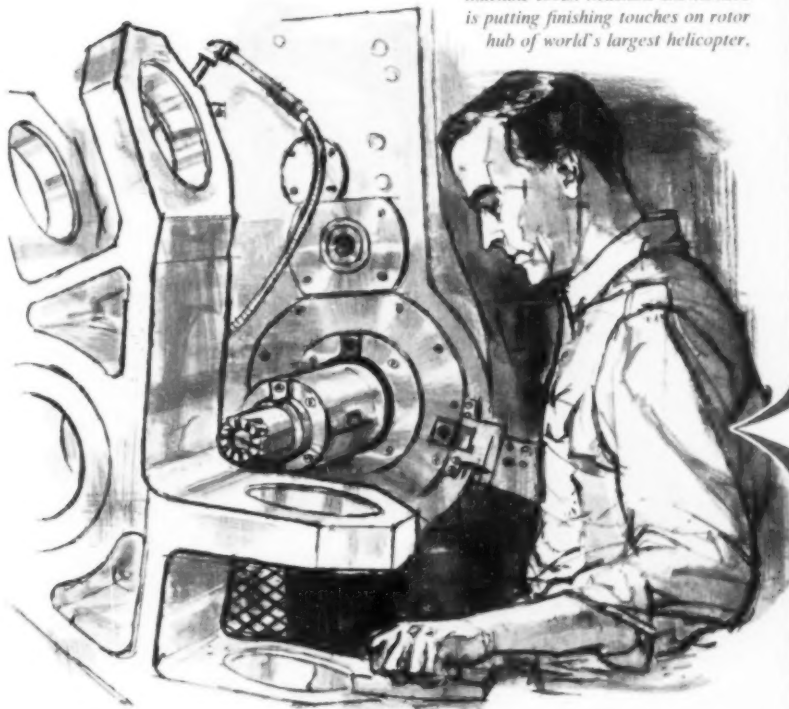
By taking such steps as these, American industry is taking another stride forward in developing the maximum capabilities and skills of its employees.

Correct Lubrication in Action...

LUBRICANT COST CUT 18% PER MACHINE

One of the many ways Giddings & Lewis
Machine Tool Company has increased profits
with the help of Socony Mobil

*Giddings & Lewis is one of the world's
largest builders of high-power precision
machine tools. Machine shown here
is putting finishing touches on rotor
hub of world's largest helicopter.*



To Giddings & Lewis one of the most direct ways to increase net profits is to reduce maintenance costs. That's why this company, a leading builder of quality, high-precision machine tools, relies on a Mobil Program of Correct Lubrication.

In just three years a Mobil "team" of lubrication specialists, working closely with Giddings & Lewis plant personnel, cut lubricant costs 17.9%

per machine . . . reduced lubricant application cost 7.6%.

These savings are but a few of the many and varied cost cuts achieved through Mobil products and Mobil service. They reflect the many hours spent by Socony Mobil field and laboratory personnel in studying machine operations, preparing technical reports, making analyses of products in use. *Why accept less for your plant?*

Leader in lubrication for 91 years

SOCONY MOBIL



Correct Lubrication

A proved program to reduce maintenance costs

SOCONY MOBIL OIL COMPANY, INC., and Affiliates: MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP., MOBIL OVERSEAS OIL CO., INC.

**How Socony Mobil
can help cut maintenance costs**



Motor failures are eliminated

At the G & L and Hypro Division, frequent failure of electric motors was found to be due to over-use of lubricant. After Mobil engineer instructed plant personnel in proper application methods, trouble ceased . . . maintenance time was cut 66%.



Wear cut on spindle bearings

To replace spindle bearings on boring machine cost \$750 every 6 months. Mobil engineer recommended a change in maintenance procedure that cost only \$6 . . . extended bearing life . . . saved \$1494.



Machine design assistance

Mobil engineers work closely with Giddings & Lewis machine designers . . . advise on lubrication and hydraulic system design . . . specify correct Mobil product to assure top performance from every new machine.

GOODYEAR INDUSTRIAL PRODUCTS

G.T.M.-Specified

COMPASS-V-Steel Belts for Air-Conditioning Unit

A Load-carrying section of endless, dimensionally stable steel cable

B Vents open between pulleys, dissipating heat

C Vents compress rounding pulleys, giving continuous gripping surface

D Highest-quality rubber underbody

E Sturdy bias-laid fabric cover resists wear

Equipment shown manufactured by American Electronics, Inc., El Monte, California

How to keep cool with \$100,000 at stake

Taking the heat off a jet bomber's \$100,000 worth of delicate instruments—during the warm-up period before take-off—was a job for a special kind of air conditioner. So designers put top priority effort into developing one not only powerful enough—but reliable enough. For they knew even a few minutes' failure could cause costly heat damage in the plane.

Key to their problem was the belting of the conditioner's clutch-actuated, multiple V-belt drive. It jolted into action at 6,000 feet per minute—had to be reversed suddenly to brake the engine. That snapped some belts immediately. Others stretched and burned. All failed in a few hours. Then the call went out for the G.T.M. — Goodyear Technical Man.

He had the answer almost at once: a matched set of dimensionally stable COMPASS-V-Steel Belts—sinewed

with endless, high-tensile steel cables. The G.T.M.'s belts soon proved they could handle this belt-wrecking job — serving for more than 1,300 hours of continuous use. Result: bombers can now be kept cool — their expensive equipment safe from costly damage — at military bases the world over.

Problem-solving skill like this is always at your disposal, too — no matter what your industrial rubber problem. Just call for the G.T.M. by contacting your Goodyear Distributor — or by writing Goodyear, Industrial Products Division, Lincoln 2, Nebraska, or Akron 16, Ohio.

It's smart to do business with your Goodyear Distributor. He can give you fast, dependable service on Hose, V-Belts, Flat Belts and many other industrial rubber and nonrubber supplies. Look for him in the Yellow Pages under "Rubber Goods" or "Rubber Products."

Compass-T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

DIMENSIONALLY STABLE V-BELTS by

GOOD YEAR

THE GREATEST NAME IN RUBBER